

Stress and Coping Styles of Parents with Children with Learning Disabilities

Azzahrah Anuar*, Edris Aden, Fatahyah Yahya, Nor Mazlina Ghazali

Faculty of Cognitive Science and Human Development, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia

Email: aazzahrah@unimas.my, Telephone: +6012-5151571, Fax: +6082-581567

Nurin Anak Chunggat

Sarawak Social Welfare Department, 93050 Kuching, Sarawak, Malaysia

*Corresponding author

Abstract

Having children with learning disabilities brings life-changing implications in the lives of the whole family. This purpose of the study was to investigate the levels of stress based on the characteristics of parents of children with learning disabilities and coping strategies among these parents. 274 parents of children with learning disabilities have been selected as respondents of the study. A quantitative, cross-sectional survey design has been utilized in the study and was conducted at the community-based rehabilitation (CBR) centers in Malaysia. Based on the findings, there were high levels of stress experienced by parents of children with learning disabilities. There were no significant stress level differences between father and mother in the study. Parents of children with higher educational background and socioeconomic status tend to feel more stressful than those with lower educational background and socioeconomic status. The emotion-based coping strategies were reported to be the most frequently used by the parents. The study has also found significant differences in the parental stress level based on race, educational level, and occupation. The findings were essential in planning intervention programs or activities for parents with learning disabilities who registered their children under the CBR center.

Keywords: Parenting, Stress, Coping, Children, Learning disability

Introduction

The experience of parenting children with disabilities demands can be intensely emotional including those with children with learning disability. Learning disability is often not being diagnosed in the early childhood stage which can cause some difficulties for parents at the later stage of intervention. Children with learning disabilities have been linked with low self-esteem, peer pressure, and were more likely to experience anxiety (Dyson, 1996). Because of the subtlety of the symptoms and its invisible nature of disability, some children with learning disability would not appear having significant issues in their functional skills (Auriemma, 2016). It brings out more challenges and yields conflicting results in terms of their effects on the parents. Some of the effects of raising children with learning disability on the family system that have been identified were family stress, inconsistent parenting difficulty in communication with the school, and conflicts with siblings. They also have been experiencing stress due to being stigmatized by their extended family members.



Literature Review

Parental stress in families of children with learning disabilities

It can be significantly overwhelming for parents who have to care for their child with learning disability. The parental stress could cause psychological to physical strain over long period of time resulting in the dysfunctional areas in parents' life.

The presence of children with learning disability generated strain on the parent's marital relationship (Dyson, 2010). Parenting dissonance has also caused the parents to adopt conflicting strategies in dealing with their children with learning disability. As a result, they experienced high levels of stress and frustration and carried out the burden of trying to overcome challenges on daily basis. There were numerous scientific evidences on the effect of stress on parents of these children. Supiah et al. (2014) reported few effects of high stress level on parents such as repeated physical and emotional disturbances, family conflicts, and financial problems. This is similar to a study conducted by Dervishaliaj (2013) who highlighted challenges such as repeated physical and emotional crises, family issues, and unorganized schedules. The excessive expenses in the family with these children could also cause some emotional distress to the parents. In the previous studies, some parents reported having difficulties in managing their children with learning disability on daily activities such as giving instructions and making decisions related to their children's homework and household chores (Lardieri et al., 2000). The effect is multidimensional and it could affect the relationship between family members such as relationship problems with the siblings as well (Rossiter & Sharpe, 2001).

Studies in the past have also looked into the socio-demographic aspects of the parent. In general, studies have shown that mothers were more likely to experience high level of stress mothers compared to fathers in the parent-child relationship (Aldosari et al., 2014; Kamaruddin et al., 2016). Parental age, marital status, and education level have also been reported as contributing factors that lead to stress in relation to raising a child with learning disability. Parents were more likely to be at a higher risk of experiencing stress when they were too old or too young (Oh et al., 1994). Few studies have shown that the family would have less stress if they have higher education level (Azar & Badr, 2010).

Coping styles of parents with children with learning disabilities

The effectiveness and quality of coping strategies by parents could be determined by the stress level of parenting children with disabilities (Hall & Graff, 2011, Lopez et al., 2008; Lyons et al., 2010; Zablotsky et al., 2013). Parents with less effective coping skills would have the tendency to experience higher levels of parental stress (Raphael et al., 2010).

Many parents feel that they have little control over how they react and cope with their situations when dealing with a child with a disability. Parents may employ either one of the following types of coping strategies when faced with changes in the family:

- (i) Emotion-focused coping responding to stress through the implementation of activities that can reduce emotional distress (Dabrowska & Pisula, 2010)
- (ii) Problem-focused coping responding to stress through taking situations under control, practicing positive self-instructions, and obtaining social support (Wang , Michaels, & Day, 2011)
- (iii) Maladaptive coping responding to stress negatively such as manifesting passive avoidance, rumination, resignation, and aggression.

Many of the parents that were lack of strong coping skills typically used the emotional coping or avoidance-oriented coping, which resulting in higher levels of stress (Pottie & Ingram, 2008; Zablotsky et al., 2013). Ineffective coping has been found to have adverse effects on parents such as exacerbating family disorganization and stress (Dyson, 2010). Sheikh et al. (2018)



indicated that parents with emotion-focused coping strategy were highly likely to become stressful than those who adapted problem-focused coping strategy. They have also reported that parents who employed the emotion-based style of coping were highly likely to be associated with anxiety and depression. In addition, parents who adapted self-blame or venting of emotions as their coping strategies would expose themselves to increased parenting stress (Hastings, 2002).

Having a child with learning disability demands a reevaluation of family goals, responsibilities and relationships and appropriate coping strategies because they are prone to emotional, physical, and social stress. Therefore, comprehending the styles of coping among parents with learning disabilities might benefit the parents in terms of managing stress through this study.

Research Objectives

The objectives of the study include:

- 1. identifying the levels of the perceived stress based on the characteristics of parents of children with learning disabilities
- 2. identifying the characteristics of the coping styles among parents of children with learning disabilities?

Research Questions

The study was guided based on the following research questions:

- 1. What are the levels of the perceived stress based on the characteristics of parents of children with learning disabilities?
- 2. What are the characteristics of the coping styles among parents of children with learning disabilities?

Methods

Study design and participants

This study utilized a non-experimental, cross-sectional survey design. The population of interest were the parents of children with learning disabilities who registered with the community-based rehabilitation center for people with disabilities. A total of 274 respondents have consented to be respondents of the study. The sample size has been determined using the Krejcie and Morgan's (1970) formula. The inclusion criteria for the respondents was those parents who have a child that has been diagnosed with Down syndrome, ASD, ADHD, global developmental delays, intellectual disability, or specific learning disabilities; aged 18 years old and below, who lives at home.

Instrument

The Parental Stress Scale (PSS) has 18 items in which its respondent requires to respond to each item on a five-point scale ranging between strongly disagree (1), disagree (2), undecided (3), agree (4), and strongly agree (5). In order to score the scale, the PSS scores were obtained by reversing the scores on the eight positive items. Total scores range from 18 to 90, with higher scores indicating greater overall distress: Low (1-30); Average (31-60); and High (61-90). The PSS was used to measure the perceived stress experienced by a parent. The instrument has previously yielded reliable results with alpha coefficients ranging from 0.89 to 0.90 (Patel et al., 2016; Pontoppidan et al., 2018).

The Brief-COPE (Coping Orientation to Problems Experienced) Inventory is a self-report questionnaire that was designed to assess variety of coping strategies adapted by parents with children with learning disability. The Brief COPE that was translated into Malay language in the previous study has been used in the current study. The Brief-COPE inventory has 28 items



and is divided into 14 sub-scales identified as self-distraction, active coping, denial, substance use, use of emotional support, use of instrumental support, behavioural disengagement, venting, positive reframing, planning, humour, acceptance, religion, and self-blame. The respondent is required to respond to each item on a four-point scale (1 = ``I haven''t been doing this at all'', 2 = ``I've been doing this a little bit'', 3 = ``I've been doing this a medium amount'', and 4 = ``I've been doing this a lot''). Coping strategies were separated into following categories based on the respondent's scores: Emotion-Focused, Problem-Focused, and Maladaptive Coping.

Data Collection

To comply with ethical considerations in conducting the study, all participants provided consent to participate in the study. The purpose of the research was explained to the participants and further explained to the participants that their information would be kept confidential. Permission for data collection has been granted to the researcher by the ministry whom responsible for overseeing the welfare of people with disabilities.

Results

Profiles of parents with children with learning disabilities

The independent variables in this study included gender, age, race, religion, educational level, occupation, and monthly income. The demographic data of participants were reported in Table 1. The sample consisted of 39.8% males (N=109) and 60.2% females (N=165). Some of the participants were parents aged between 41 and 50, 33.9% (N=93), followed by 32.8% (N=90) were parents aged 51 and above, 23% (N=63) were parents aged 31 to 40, and 10.2% (N=28) were parents aged 20 to 30.

As for their religious background, 51.5% were Christians (N=141), 37.6% were Muslims (N=103), 9.5% were Buddhist (N=26), and 13.5% were from other religions (N=37). Malays made up 29.6% of the sample (N=81). 18.6% were Iban (N=51), 15.7% were Bidayuh (N=43), 13.1% were Chinese (N=36), and 6.6% were Orang Ulu (N=18). 13.5% (N=37) were from other racial groups. The educational level of the parent was quite low with 50.4% had a secondary school education, 17.2% had a primary school education, and 9.9% had no formal education. A few of the respondents had tertiary education with 14.6% with Diploma, 5.5% with Bachelor degree, 1.8% with Master degree, and 0.7% with Doctoral degree. In terms of their occupation, 23% (N=63) were self-employed, 17.2% (N=47) were private sector employees, and 15% (N=41) were government sector employees. 11.7% (N=32) respondents have indicated that they work in the farming industry, 2.9% (N=8) of the respondents involve in business, and 30.3% respondents (N=83) did not indicate their specific occupation. Majority (65.6%) of the respondents earned less than RM1,000 as their monthly income whereas 23.4% earned between RM1,000 and RM3,000. Meanwhile, 8.4% has a monthly income of RM3,000 to RM5,000. Only 2.6% of the parents made more than RM5,000 per month (see Table 3).



Table 1: Distribution of socio-demographic of the parents

Table 1: Distribution of socio-demographic of the Variable	% (N)
Gender	` ,
Male	39.8 (109)
Female	60.2 (165)
Age	` '
20-30	10.2 (28)
31-40	23 (63)
41-50	33.9 (93)
51 and above	32.8 (90)
Race	
Malay	29.6 (81)
Iban	18.6 (51)
Bidayuh	15.7 (43)
Melanau	2.9 (8)
Orang Ulu	6.6 (18)
Chinese	13.1 (36)
Others	13.5 (37)
Religion	
Islam	37.6 (103)
Christian	51.5 (141)
Buddha	9.5 (26)
Others	1.5 (4)
Educational Level	1.5 (1)
Doctoral degree	0.7 (2)
Master degree	1.8 (5)
Bachelor degree	5.5 (15)
Diploma	14.6 (40)
Secondary School	50.4 (138)
Primary School	17.2 (47)
No Formal Education	9.9 (27)
Occupation	7.5 (21)
Self-employed	23 (63)
Farmer	11.7 (32)
Government sector employee	15 (41)
Private sector employee	17.2 (47)
Businessperson	2.9 (8)
Others	30.3 (83)
Monthly Income	30.3 (03)
Less than RM1,000	65.6 (179)
RM1,000-RM3,000	23.4 (64)
RM3,000-RM5,000	8.4 (23)
More than RM5,000	2.6 (7)
111010 didii 10113,000	2.0 (1)

Perceived stress of parents with children with learning disabilities

Based on the mean scores, parents of children with learning disabilities aged between 20 and 30 (M=61.75) reported higher level of stress than the other older age groups. Meanwhile, Orang Ulu parents (M=65.11) have indicated they experienced more stress than other parents from different racial background. The perceived stress levels of parents with tertiary education background were higher than those with lower educational level which include parents with Master degree (M=71) and parents with Doctoral degree (M=64). The analysis showed that the mean score for the parents' stress who earn income of more than RM5,000 monthly were higher than other income group (M=64.14). With regard to the occupation, parents who run businesses (M=62.25) were reported to feel more stressful than those who hold job positions such a farmer, government sector employee, and private sector employees. In terms of religion,



those parents practicing Buddha (M=62.65) were reported to have higher stress level other than those from other religion.

An independent t-test was conducted to determine if there were differences in the perceived stress score by gender. As assessed by Levene's Test for Equality of Variances, homogeneity of variances was violated, (p=.504). Fathers (M=60.98,SD=8.37) were reported to experience more stress than mothers (M=60.87,SD=7.73). Results revealed that there were no significant differences in the perceived stress score by gender, t=.110, p=.912 (see Table 2).

A one way between groups ANOVA was conducted to examine the differences in the parent's perceived stress scores by age range. Results revealed there was no significantly differences between the perceived stress scores by age range, F (3,270)= .119, p=.949.

A significant difference was found on the ANOVA test regarding scores on the perceived stress level and race, F(6, 267) = 7.436, p = .000. The effect size was small (0.14). There were significant differences in the stress level of parents based upon race when using the Tukey's post hoc procedure. A Tukey post hoc test revealed that Bidayuh parents had significant higher scores compared to Malay parents (p = .036). Post hoc analyses also revealed that Malay (p = .008), Iban (p = .002), Bidayuh Melanau (p = .042), Orang Ulu (p = .000), and Chinese (p = .000) parents had significant higher stress level scores compared to parents from other ethnic groups.

The analysis of variances showed that there were no significant differences in the perceived stress scores by religious background, F (3,270)= 1.017, p=.385.

An ANOVA test on the perceived stress scores and educational level of the parents produced significant results, F(6, 267) = 3.816, p = .001. The effect size was small (0.08). Tukey's post hoc procedure found significant differences when comparing parents' stress level based upon educational level. Parents with Master degree had significant higher scores compared to parents with Diploma (p = .035) and parents with no formal education (p = .002). Meanwhile, parents with secondary school education had significant higher scores compared to parents with no formal education (p = .010).

The result of ANOVA showed that there were significant differences in the perceived stress scores by parent's occupation, F (5,268)= 2.619, p=.025. The effect size was small (0.05). Post hoc comparison analysis using the Tukey test indicated that self-employed parents had significant lower stress level scores than parents who indicated working generally in this study (p = .01).

The study found no significant differences in the perceived stress scores by parent's monthly income, F(3,269)=.584, p=.626 (see Table 3).

Table 2: Comparison of mean perceived stress score based on the parent's characteristics using Independent t-test

Variable	n	Mean (SD) t(df)		P-value	
Gender					
Male	109	60.98 (8.37)	.110 (272)	.912	
Female	165	60.87 (7.73)			

^{*}p < .05



Table 3: Comparison of mean perceived stress score based on the parent's characteristics using ANOVA

Variable	Mean (SD)	F(df)	P-value
Age		.119 (3,270)	.949
20-30	61.75 (7.84)		
31-40	60.90 (6.95)		
41-50	60.85 (7.33)		
51 and above	60.73 (9.32)		
Race			.000*
Malay	59.94 (7.65)	7.436 (6,267)	
Iban	61.04 (5.99)		
Bidayuh	64.28 (9.60)		
Melanau	63.50 (3.42)		
Orang Ulu	65.11 (7.54)		
Chinese	62.67 (8.58)		
Others	54.68 (5.03)		
Religion			.385
Islam	59.96 (7.21)	1.017 (3,270)	
Christian	61.26 (8.43)		
Buddha	62.65 (8.37)		
Others	62 (7.79)		
Educational Level			.001*
Doctoral degree	64 (5.66)	3.816 (6,267)	
Master degree	71 (9.41)		
Bachelor degree	62.4 (8.62)		
Diploma	59.65 (5.87)		
Secondary School	61.56 (7.85)		
Primary School	61.32 (8.39)		
No Formal Education	55.89 (7.72)		
Occupation	50.5 6 (0.61)	2 (10 (5 2 (0))	.025*
Self-employed	58.56 (8.61)	2.619 (5,268)	
Farmer	59.53 (8.40)		
Government sector employee	60.73 (6.46)		
Private sector employee	61.19 (7.76)		
Businessperson	62.25 (6.34)		
Others	63.05 (7.84)		
Monthly Income	(1.05 (0.56)	594 (2.250)	.626
Less than RM1,000	61.05 (8.56)	.584 (3,269)	
RM1,000-RM3,000	60.19 (7.03)		
RM3,000-RM5,000 More than RM5,000	60.61 (6.76) 64.14 (2.91)		
WIOTE HIGH KIVIS,000	04.14 (2.71)		

^{*}p < .05

Characteristics of parent's coping style

Based on the variables investigated on the parent's coping style, majority of the parents who have adapted the emotion-focused coping strategy were parents with the secondary school education background. Melanau parents marked the highest percentage (75%), followed by Orang Ulu parents (50%) and Chinese (47.2%). 47.1% Iban, 46.5% Bidayuh, and 32.1% Malay



parents have reported using the emotion-focused coping strategy in dealing with their children with learning disability.

On the other hand, the characteristics of parent's using the maladaptive coping strategy vary. Most parents with maladaptive coping strategy were also those with the secondary school education background which include Chinese (13.9%), Orang Ulu (11.2%), Iban (9.8%), and other races (2.7%). 11.6% Bidayuh parents indicated that they used the maladaptive coping strategy with their children with learning disability. 7.4% Malay parents with no formal education have also reported utilizing the maladaptive coping strategy in raising their children with learning disability (see Table 4 and Table 5).

Table 4: Characteristics of parent's coping style

Educational Level								
	PhD		Master		Bachelor		Diploma	
	Emo	Mal	Emo	Mal	Emo	Mal	Emo	Mal
Race	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
Malay	0 (0)	0 (0)	0 (0)	1.2(1)	7.4 (6)	1.2(1)	9.9 (8)	2.5 (2)
Iban	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	15.7 (8)	0(0)
Bidayuh	0(0)	2.3 (1)	0(0)	0(0)	0(0)	2.3 (1)	4.7 (2)	0(0)
Melanau	0(0)	0(0)	0(0)	0(0)	0(0)	0 (0)	0(0)	12.5 (1)
Orang	0(0)	0(0)	11.1(2)	0(0)	0(0)	5.6(1)	11.1(2)	5.6(1)
Ulu								
Chinese	2.8(1)	0(0)	5.6(2)	0(0)	8.3 (3)	0 (0)	11.1(2)	5.6(1)
Others	0(0)	0(0)	0(0)	0(0)	8.1 (3)	0(0)	27 (10)	0(0)

^{*}Emo = Emotion-focused

Table 5: Characteristics of parent's coping style (continued)

Educational Level						
Race	Secondary		Primary		No Formal Education	
	Emo	Mal	Emo Mal		Emo	Mal
	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
Malay	32.1 (26)	2.5 (2)	14.8 (12)	4.9 (4)	3.7 (3)	7.4 (6)
Iban	47.1 (24)	9.8 (5)	21.6 (11)	3.9 (2)	2(1)	0 (0)
Bidayuh	46.5 (20)	7 (3)	16.3 (7)	11.6 (5)	7 (3)	2.3 (1)
Melanau	75 (6)	0(0)	0(0)	0 (0)	12.5 (1)	0 (0)
Orang	50 (9)	11.2 (2)	5.6 (1)	0 (0)	0(0)	0 (0)
Ulu						
Chinese	47.2 (17)	13.9 (5)	5.6 (2)	0 (0)	0(0)	0 (0)
Others	21.6 (8)	2.7 (1)	8.1 (3)	0 (0)	29.7 (11)	2.7 (1)

Discussion

The findings of this study have put an emphasis on the importance of exploring the level of stress and the coping strategy of the parents of children with learning disability through their socio-demographic background. The findings have shown that the number of parents who experienced high levels of stress were relatively high. These results were consistent with a study conducted by Isa et al. (2017) whereby parents of children with learning disabilities were exposed to increased stress and negative caregiving consequences.

^{*}Mal = Maladaptive



Additionally, none of the parents have adopted the problem-focused coping strategy based on the study findings. More parents adopted the emotion-focused coping strategy and few have used the maladaptive coping mechanism. It could be inferred that the parents have used the negative coping strategies in overall with their children with learning disability. This was contrary with the previous study finding on the application of positive coping strategies such as the problem-focused coping in dealing with a family member with a learning disability. This strategy would be helpful to minimize the challenges of raising these children (Chukwu et al., 2019). The emotion-based styles of coping in parents were reported to have linked with the anxiety and depression (Sheikh et al., 2018). This could be one of the contributing factors that have led the parents to have high level of stress due to their tendencies to use emotion-focused and maladaptive approach as their coping strategy.

The study has also found that both father and mother have approximately experienced similar level of stress when dealing with their children with learning disability. This was contradicted with the previous findings where mothers have experienced more negative effects than fathers (Kamaruddin, Abdullah, & Idris, 2016). The different levels of stress experienced by mothers and father were associated with their gender roles where mothers were typically related with child rearing while fathers were linked with family income generation (Gray, 2003). According to Dervishaliaj (2013), fathers tend to use avoidance technique when dealing with children with special needs.

There were no specific patterns on how racial background might have an influence on parents who raise children with learning disability. Orang Ulu has been reported to encounter more stressful situations while looking after their children with learning disability compared to parents from other races. With regard to ethnicity, there was a significantly high number of Chinese parents who have more stress than the Malay and Indian parents (Kamaruddin, Abdullah, & Idris, 2016). Though there were lack of empirical studies examining this variable, some researchers highlighted on the disproportionate identification of racial minorities with learning disabilities as part of stratification that occurred within the education system (Shifrer, Muller, & Callahan, 2011). The disparities in services for minority parents could have tremendous implications not only for children well-being but also their own mental health status.

With regard to religion, Muslim parents' level of stress were at the moderate level whereas whereas Christian and Buddhist parents experienced higher level of stress. On the other hand, the outcome of the study was slightly different from Kamaruddin et al. (2016) study in which all of the groups of Muslim, Christian, Buddhist, and Hindu parents were at the moderate level of stress. Religion was not a determining factor that guaranteed success in parenting children with disabilities though spirituality could be an important means to instill good coping strategies among parents (Durà-Vilà, Dein, & Hodes, 2010).

In terms of educational background, the study outcomes have revealed that those with higher level of education and higher socioeconomic status were more likely to become more distressed when caring for their children with learning disability. This is consistent with Gupta et al. (2012) study. Parents who engaged in more lucrative jobs had more stress than parents engaged in less lucrative occupations regardless of their income. These results were contradicted with most published studies which report higher stress among parents of low socioeconomic status (Kamaruddin & Mamat, 2015). Duncan et al. (1972) have listed a few factors that explained the high stress level among professional parents including their set expectations toward their children, the feeling of shame and frustration for not being able to "cure" their children's condition and over the restrictions that they encountered in their social and work activities. It could be inferred that parents with higher socioeconomic status might have equal or similar



level of pressures as to parents with lower socioeconomic status due to different types of stressors of parents of children with disabilities.

In this study, working parents have indicated experiencing more pressures than those who were self-employed. Caregiving roles and responsibilities could affect productivity of the parents. Parents frequently struggle to meet the demands of balancing work and home when they work, which would also transfer into the home setting (Cauda-Laufer, 2017). Parents also expressed difficulties in balancing work and life demands and put in conflicting situations when they participated in paid employment (Leiter et al., 2004). This might explain the outcome of the study related to the stress level of the parents in the realm of occupation. Limitations existed in this study. It is a problem to confirm how responses are based on the actual behavior when utilizing a survey method design to measure the level of stress and coping style of these parents. They might have responded based on their social desirability status.

Conclusion

The results suggested the need to support parents with children with learning disability. Identification of parental stress and coping could be a reflection of social differences rather than differences in learning capability when the study linked these variables with socio-demographic characteristics. These social differences do not only impact the children with learning disability but also to their caregivers (parents). The findings of the study should be used as a guideline information to improve the intervention programs and services provided by the community-based rehabilitation center for parents and their children. This study offered a rich agenda for future research. It is recommended that the qualitative approach be conducted such as interview and focus group to advance the understanding on the parents who have children with learning disabilities.

References

- Aldosari, M. S., & Pufpaff, L. A. (2014). Sources of stress among parents of children with intellectual disabilities: A preliminary investigation in Saudi Arabia. *The Journal of Special Education Apprenticeship*, 3(1)
- Auriemma D. L. (2016). *Parenting stress in parents of children with learning disabilities* (Doctoral dissertation, Fordham University, 2016). (AAI10145751).
- Azar, M., & Badr, L. K. (2010). Predictors of coping in parents of children with an intellectual disability: Comparison between Lebanese mothers and fathers. *Journal of Pediatric Nursing*, 25(1), 46-56.
- Cauda-Laufer, N. (2017). Raising a child with a disability: Coping mechanisms and support needs.
- Chukwu, N. E., Okoye, U. O., Onyeneho, N. G., & Okeibunor, J. C. (2019). Coping strategies of families of persons with learning disability in Imo state of Nigeria. *Journal of Health, Population, and Nutrition*, 38(1), 9.
- Dabrowska, A. & Pisula, E. (2010). Parenting stress and coping styles in mothers and fathers of pre-school children with autism and Down syndrome. *J Intellect Disabil Res.*, 54(3):266-280.
- Dervishaliaj, E. (2013). Parental stress in families of children with disabilities: A literature review. *Journal Of Educational And Social Research*, *3*(7), 579.
- Duncan, O.D., Featherman, D.L., & Duncan, B.D. (1972). *Socioeconomic background and achievement*. New York: Seminar Press.
- Durà-Vilà, G., Dein, S., & Hodes, M. (2010). Children with intellectual disability: A gain not a loss: Parental beliefs and family life. *Clinical child psychology and psychiatry*, 15(2), 171-184.



- Dyson, L. (2010). Unanticipated effects of children with learning disabilities on their families. *Learning Disability Quarterly*, 33(1), 43-55.
- Dyson, L. L. (1996). The experiences of families of children with learning disabilities: Parental stress, family functioning, and sibling self-concept. *Journal of Learning Disabilities*, 29(3), 280-286.
- Gray, D. E. (2003). Gender and coping: The parents of children with high functioning autism. *Social Science and Medicine*, *56*, 631-642.
- Gupta, V.B., Mehrotra, P & Mehrotra, N. (2012). Parental stress in raising a child with disabilities in India. *Journal of Intellectual Disability*, 23(2), 119.
- Hall, H. R., & Graff, J. C. (2011). The relationships among adaptive behaviors of children with autism, family support, parenting stress, and coping. *Issues in Comprehensive Pediatric Nursing*, 34, 4–25.
- Hastings, R. (2002). Parental stress and behaviour problems of children with developmental disability. *Journal of Intellectual and Developmental Disability*, 27(3), 149–160.
- Isa, S. N., Ishak, I., Rahman, A. A., Saat, N. Z., Din, N. C., Lubis, S. H., & Ismail, M. F. (2017). Perceived stress and coping styles among Malay caregivers of children with learning disabilities in Kelantan. *The Malaysian Journal of Medical Sciences*, 24(1), 81–93.
- Kamaruddin, K., Abdullah, C.A., & Idris, M.N. (2016). Parental stress in parents of children with learning disabilities: A limited demographic factors. *International Review of Management and Marketing*, 6, 221-225.
- Kamaruddin, K. & Mamat, N. (2015). Stress among the parents of children with learning disabilities: A demographical analysis. *International Journal of Humanities Social Sciences and Education*, 2(9), 194-200.
- Lardieri, L., Blacher, J., & Swanson, H. (2000). Sibling relationships and parent stress in families of children with and without learning disabilities. *Learning Disability Quarterly*, 23(2).
- Leiter, V., Krauss, M. W., Anderson, B., & Wells, N. (2004). The consequences of caring effects of mothering a child with special needs. *Journal of Family Issues*, 25(3), 379–403.
- Lopez, V., Clifford, T., Minnes, P., & Ouellette-Kuntz, H. (2008). Parental stress and coping in families of children with and without developmental delays. *Journal on Developmental Disabilities*, *14*, 99–104.
- Lyons, A. M., Leon, S. C., Phelps, R., & Dunleavy, A. M. (2010). The impact of child symptom severity on stress among parents of children with ASD: The moderating role of coping styles. *Journal of Child and Family Studies*, 19, 516–524.
- Oh, K. S., Rubin, S. E., & Mouw, J. T. (1994). Predictors of maternal adjustment to a child with mental retardation. *International Journal of Rehabilitation Research*, 17(1), 64-69.
- Patel M. J., Patel P. B., & Bansal R.K. (2016). Parental stress scale: Translation and preliminary testing for a Gujarati sample. *Ntl J Community Med*, 7(7), 551-554.
- Pontoppidan, M., Nielsen, T., & Kristensen, I. H. (2018). Psychometric properties of the Danish parental stress scale: Rasch analysis in a sample of mothers with infants. *PloS one*, 13(11).
- Raphael, J. L., Zhang, Y., Liu, H., & Giardino, A. P. (2010). Parenting stress in US families: Implications for paediatric healthcare utilization. *Child Care*, *Health and Development*, 36(2), 216-224.
- Rossiter, L., & Sharpe, D. (2001). The siblings of individuals with mental retardation: A quantitative integration of the literature. *Journal of Child and Family Studies*, 10, 65-84.



- Sheikh, M. H., Ashraf, S., Imran, N., Hussain, S., & Azeem, M. W. (2018). Psychiatric morbidity, perceived stress and ways of coping among parents of children with intellectual disability in Lahore, Pakistan. *Cureus*, 10(2).
- Shifrer, D., Muller, C., & Callahan, R. (2011). Disproportionality and learning disabilities: Parsing apart race, socioeconomic status, and language. *Journal of learning disabilities*, 44(3), 246-257.
- Supiah, S., Abd Hamid, S.R. & Ismail, K. (2014). Knowledge of learning disabilities among pre-service and in-service teachers trainee in Malaysia, *IIUM Journal of Educational Studies*, 2(2), 22-39.
- Taderera, Clever, Hall, & Herna (2017). Challenges faced by parents of children with learning disabilities in Opuwo, Namibia. *African Journal of Disability (Online)*, 6, 1-10.
- Wang, P., Michaels, C. A., & Day, M. S. (2011). Stresses and coping strategies of Chinese families with children with autism and other developmental disabilities. *J Autism Dev Disord*, 41(6), 783-795.
- Zablotsky, B., Bradshaw, C. P., & Stuart, E. A. (2013). The association between mental health, stress, and coping supports in mothers of children with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 43, 1380–1393.