ORIGINAL ARTICLE

COPING SKILLS AND PSYCHOSOCIAL ADJUSTMENTS AMONG PARENTS OF CHILDREN WITH LEARNING DISABILITIES (LD)

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Abstract

Objectives: This study investigated the relationship between coping skills and psychosocial adjustments among parents of children with LD. Method: A cross-sectional study with a convenience sampling method was applied to a total of 87 parents of children with LD from four non-government community rehabilitation centers. They were measured using a validated Malay version of the Family Crisis Oriented Personal Evaluation Scale (F-COPES) for coping skills. The Modified Psychosocial Adjustment to Illness Scale-Self-Report (PAIS-SR) was used to measure parents' psychosocial adjustments. Results: A Spearman's rho showed a correlation between total coping skills and psychosocial adjustments scores among parents (r_s = -0.43, p<0.01). The analysis showed that seeking social support (r_s = -0.33, p<0.05), reframing (r_s = -0.25, p < 0.01), seeking spiritual support ($r_s = -0.30$, p < 0.05), and mobilizing to acquire and accept help ($r_s = -0.33$, p < 0.05) have significant correlations to the total score of PAIS-SR. Conclusion: The study suggested that parents with better psychosocial adjustment develop better coping skills. Therefore, strategies to improve coping skills and psychosocial adjustment should be considered for parents of learning disabilities. ASEAN Journal of Psychiatry, Vol. 18 (2): July -December 2017: XX XX.

Keywords: Parents with LD, Parenting, Stress, Family, Health

Introduction

According to the National Joint Committee on Learning Disabilities (NJCLD), learning disabilities refers to "a heterogeneous group of disorders shown by significant difficulties in learning and the use of listening, speaking, reading, writing, reasoning or mathematical abilities. The e disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the life span. Problems in self-regulatory behaviours, social perception, and social interaction may exist with learning disabilities but do not, by themselves, constitute learning disabilities. Although learning disabilities may occur concomitantly with other disabilities, *e.g.* sensory irment,

intellectual disabilities, serious emotional disturbance, or with extrinsic influences, *i.e.* cultural differences, they are not the result of those conditions or influences" [1]. This study analyzed the life of parents who experienced a child with learning disability, included those who have high-functioning autism and attention-deficit hyperactivity disorders (ADHD), with excluded those who have intellectual disabilities.

Parenting a child with learning disability is challenging work and increases the stress level of the parents [2-4]. Two recent studies reported parental distress was higher among parents of children with learning disabilities compared to parents of typical children [5-6]. Furthermore, the level of parenting stress among parents of children with disabilities are associated with the child's behavior [3, 7-8]. As compared to normal peers, the children with learning disabilities were much more dependent on the parents to manage their selves [9-10]. Moreover, lack of resources to help a hyperactive child at school or in the home environment also adds to the existing stress of the parents [11]. In real life, once that they notice that their children have learning disabilities, the ability of the parents to cope with the stress and to adjust well is necessary.

Good parenting of children with learning disabilities was influenced by the selection of coping skills to adopt positive adjustments in everyday functioning [12]. Additionally, effective coping skill selected by parents was beneficial for prevention of acquiring poor health outcomes in psychological, emotional, social and physical aspects [13-14]. The parents who employed effective coping skills to handle children with learning disabilities reported decreased depression symptoms [15] and social isolation [16]. For example, the parents who used task-oriented coping skills may have less parenting stress in contrast to parents who used emotion-oriented coping skills [2, 6]. The above findings highlighted the benefits of practicing good coping skills to improve parental adjustments, especially among parents of children with learning disabilities.

Although there are many studies on psychosocial adjustments of the parents, the studies commonly focused on the factors that influenced family adaptation [17-18]. Raising children with disabilities can trigger an emotional reaction in parents, such as feeling guilty to spend more hours on them [19]. Parents who have highly stress reported having psychological distress such as loss of friendship, feeling of isolation, anger, grudge, shock and sadness [20]. Moreover, stress experienced among parents of children with disabilities also makes a high impact on psychosocial adjustments across the family system, including siblings [21]. Factors such as the economic status of family, loss of job, and marital problems while raising children with learning disabilities create additional stress on the families [22]. In particular, the family that has a lack of support from relatives. friends, and society have higher risks of social isolation [19].

A past study suggested that parents who positively responded to stress showed better emotional adjustment [17]. Therefore, the knowledge of coping skills and psychosocial adjustments are meaningful to help parents to manage the children with LD. Of these, a relationship between coping skills and psychological adjustments needs to be further explored to improve the well-being of the parents. Therefore, the aim of this study is to determine the relationship between coping skills and psychosocial adjustments among parents of children with LD. The hypothesis of this study is parents with better psychosocial adjustment would have better coping skills.

Methods

Participants

A cross-sectional study was conducted among 87 parents (n=61, mothers, n=26, fathers) who had children with learning disabilities. The participants were recruited using the convenience sampling method from four non-government community rehabilitation centers in the Federal Territory of Kuala Lumpur, between December 2013 and April 2014. The participants were the parent, either father or mother having one child diagnosed with learning disabilities which included dyslexia, and/or learning disabilities with concomitant disorders such as attention-deficit hyperactivity disorder (ADHD), high functioning autism and slow learners. The age

of children were ranged between 3 to 17 years of age. Parents were excluded in this study if, they (i) had more than one child diagnosed with learning disabilities, (ii) were parents of children with other disabilities such as mental retardation and moderate to severe autism, (iii) not actively involved in taking care of the child with learning disabilities, and (iv) were under medication or have history of any psychiatric disorders. Ethical approval was obtained from the university and ethics committee before implementing this study.

Procedure for data collection

The coordinator of the center were explained by the researcher about the study procedures, how to participate in this study, and what to fill up the questionnaires. Then. the coordinator of the center held an informational meeting about the study and parents were asked to participate in this study voluntarily. The coordinator distributed the consent form to all parents. Eighty seven parents returned the consent form agreing to take part. All parents were given instructions to complete socio-demographic proforma the and self-reported questionnaires: the Malay version of Family Crisis Oriented Personal (F-COPES) and Scale the Modified Psychosocial Adjustment to Illness Scale-Self Report (PAIS-SR). Parents ensured that their answers would remain entirely confidential. The researcher collected the completed form and questionnaires after one week of time. All 87 parents had answered the questionnaires and all data were included for analysis.

Materials

Malay Version of Family Crisis Oriented Personal Evaluation Scale (F-COPES): F-COPES was used to measure the coping skills of parents of children with learning disabilities. The tool recorded the problem-solving attitudes and behaviors that parents developed in response to problems in handling their children with LD. The F-COPES contains 30 items that were been divided into five coping skill domains: acquiring social support, reframing, seeking spiritual support, mobilizing family to acquire and accept help, and passive appraisal. A five point, self-reported Likert scale that ranged from "strongly disagree" (1) to "strongly agree" (5) was used to score the coping skills. Each item rated how much the parents or caregiver agreed or disagreed with the statement about their response to problems or difficulties that they encountered to handle their children. Total score and a score for each of the domain of F-COPES were calculated. The higher score represented the highest level of coping skills adopted by parents who handled children with LD. Prior to data collection, the reliability of the Malay version of F-COPES was tested among parents of children with LD and it showed a high Cronbach's α value 0.785.

Modified Psychosocial Adjustment to Illness Scale - Self-Report (Modified PAIS-SR):

The Modified PAIS-SR was used to measure the psychosocial adjustments of the parents. The scale had seven domains of adjustments: orientation, health care vocational environment, domestic environment, sexual relationship, extended family relationship, social environment, and psychological distress. There were 46 items on this self-reported questionnaire. Each item was rated on 4-point (0 to 3) scale of adjustment. Total score and score for each domains of PAIS-SR were calculated. The highest score represented poor adjustment status. Prior to data collection, the reliability of the Modified PAIS-SR was tested among parents of children with learning disabilities and it showed a high Cronbach's a value 0.723.

Data Analysis

The Statistical Package for Social Science (SPSS) version 22 software was used to analyze the obtained data. Analysis of the demographic data obtained from the parents was summarized by descriptive statistics. Coping skills and psychosocial adjustments employed by parents of children with learning disabilities were analyzed and presented in means and standard deviations. A correlation analysis was conducted to determine the relationship between total coping skills and total psychosocial adjustment score. Further analysis of bivariate correlation was completed to determine the relationship of domains of psychosocial coping skills and total adjustments. In addition, an analysis was conducted to explore the relationship between

individual domains of coping skills and psychosocial adjustments domains. The significant level was seen at 0.05 with a confidence interval of 95%.

Results

Descriptive demographic characteristics of 87 parents of children with learning disabilities were summarized in Table 1.

Demographic characteristic		Frequencies			
		n	%		
Gender	Male	26	29.9		
	Female	61	70.1		
Age (years)	<30	4	4.6		
	30-39	37	42.5		
	40-49	38	43.7		
	>50	8	9.2		
	Median (IQR)	40 (35-45)			
Marital Status	Married	76	87.4		
	Separated	3	3.4		
	Widow/widower	8	9.2		
Educational	Primary	2	2.3		
Level	Secondary	28	32.2		
	Tertiary	57	65.5		
Monthly Income	Low (≤ 2299)	9	10.3		
	Moderate (2300-5599)	39	44.8		
	High (≥ 5600)	39	44.8		
	Median (IQR)	5000 (3500-10000)			
Age of Children	3-6	21	24.1		
(years)	7-12	55	63.2		
	13-18	11	12.6		
	Median (IQR)	9 (7-10)			

Table 1	Demographic	background c	f narents	(N=87)
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IQR= inter quartil range

Demographically, the mean age of the participants was 40 (SD = 9.12 years). The majority of the participants were mothers, 70.1% (n=61) and married, 87.4% (n=76). There are 36 children with dyslexia, 41 children with high functioning autism, 4 with ADHD, and 5 with slow learner in this study. The score of coping skills and psychosocial adjustments obtained from the parents of children with learning disabilities were presented by means and standard deviations in Table 2.

The commonly utilized coping skill by the parents was reframing with a mean score (30.26 ± 5.86) . It was followed by seeking social support (28.93 ± 7.17) , mobilizing to acquire and accept help (16.03 ± 3.29) , and seeking spiritual support (15.13 ± 3.64) . The

least utilized coping skill in this study was passive appraisal (11.78 ± 3.26). Parents of children with dyslexia (59.5%), high functioning autism (56.1%) and ADHD (75.0%) were chosen reframing method. However, most parents of children with slow learner chose acquiring social support for the highest coping skills method (60.0%).

In psychosocial adjustments, parents most commonly identified problems in health care orientation (9.21 \pm 3.13). It was followed by psychological distress (7.01 \pm 4.81), domestic environment (6.41 \pm 4.60), social environment (5.33 \pm 4.73), vocational environment (4.68 \pm 3.24), and sexual relationship (3.37 \pm 3.97). The domain with the lowest score was extended family relationships (3.23 \pm 3.97).

Measures	Item	Μ	SD
F-COPES	Seeking social support	28.93	7.17
	Reframing	30.26	5.86
	Seeking spiritual support	15.13	3.64
	Mobilizing to acquire and accept help	16.03	3.29
	Passive appraisal	11.78	3.26
Modified PAIS-SR	Health Care Orientation	9.21	3.13
	Vocational Environment	4.68	3.24
	Domestic Environment	6.41	4.60
	Sexual Relationship	3.37	3.97
	Extended Family Relationship	3.23	2.80
	Social Environment	5.33	4.73
	Psychosocial distress	7.01	4.81

Table 2. Means and standard deviation of coping skills and psychological adjustment

M= Mean, average value, SD=standard deviation

The relationship between the total score of F-COPES and PAIS-SR are presented in Table 3. The result of Spearman's rho correlation showed there was a moderate, negative correlation between the total coping skills score and total psychosocial adjustment score ($r_{\rm s}$ = -0.43, p<0.01). Moreover, correlation results found that seeking social support ($r_{\rm s}$ =

-0.33, p<0.05), reframing (r_s = -0.25, p<0.01), seeking spiritual support (r_s = -0.30, p<0.05), and mobilizing to acquire and accept help (r_s = -0.33, p<0.05) had significant moderate negative correlations with the total score of PAIS-SR. Only passive appraisal did not show significant correlation with the total score of PAIS-SR.

Table 3. Relationship between each domains in F-COPES and total score PAIS-SR

F-COPES Domain	Seeking Social Support	Reframing	Seeking Spiritual Support	Mobilizing to Acquire and Accept Help	Passive Appraisal	F-COPES Total
PAIS-SR Total	25 *	30**	33**	33**	16	43**

F-COPES = Family Crisis Oriented Personal Scale (F-COPES), *p<.05, **p<.01.

A further analysis was conducted to explore bivariate associations on all of the domains between F-COPES and PAIS-SR. Table 4 shows that the mobilizing to acquire and accept help score had a significant negative correlation (r>-.3, p<0.01) with the majority of the PAIS-SR domains. The seeking social support score also had significant correlation

with a negative medium effect size (r>-.3, p<0.01), with five PAIS-SR domains, except sexual relationship and extended family relationship. In addition, significant correlation was also noted between reframing and seeking spiritual support with several PAIS-SR domains.

Table 4. Correlations r values between each domains of the F-COPES and the PAIS-SR

	F-COPES Domains				
Modified PAIS-SR Domains	Seeking Social Support	Reframing	Seeking Spiritual Support	Mobilizing to Acquire and Accept Help	Passive Appraisal
Orientation to health care	24*	26*	30**	31**	06
Vocational environment	28**	19	18	25*	03
Domestic environment	30**	22 *	25 *	31**	21

Sexual relationship	16	18	18	28**	.30**
Extended family relationship	18	21*	18	28**	.07
Social relationship	23*	04	17	12	16
Psychological distress	33**	26*	23 *	28**	.16

F-COPES = Family Crisis Oriented Personal Scale (F-COPES); PAIS-R = Modified Psychosocial Adjustment to Illness Scale-Self Report (PAIS-SR).*p<.05, **p<.01.

Discussion

The main aim of the current study was to identify the relationship between coping skills and psychological adjustments among parents of children with learning disabilities. A number of studies have documented the types of coping skills [23-24, 6] and effects of children with disabilities on family adaptation [25-26] among parents who have children with learning disabilities. However, no study on the relationship between coping skills and psychosocial adjustments of the parents has been published.

Findings from this study showed that most of the parents utilized the reframing (M=30.26) method as a coping skill while handling children with learning disabilities followed by support (M=28.93). It acquiring social that parents indicates with different characteristics of children did not influence the selection method of coping skills. Reframing is a positive acceptance of the problems faced by the parents while looking after their disabled child [15]. Acquiring social support is the abilty of the family to actively engage in acquiring support from relatives, friends, neighbours, and extended family (e.g. sharing difficulties with relative) [6]. The mean of acquiring social support result was below average with a previous study on examining the coping skills of parents who have children with special needs using the F-COPES. The previous study reported acquiring social support was the most utilized coping skills with a normative mean, M=33.0 [6] (Moawad 2012) before reframing method. However, a study done by Pritzlaff (2001) found that acquiring social support and reframing method (M=31.0) were the most utilized coping skills among parents. The previous study mentioned that availability of support in resources and good family structure helped the parents to respond to the stress successfully when taking care of children with learning disabilities [27-28]. In another study, it reported that, in handling children with learning disabilities such as autism, parents were more capable to tackle the problems after using the reframing method [29]. The advantage of positive acceptance encourages the parents to always accept their difficult situations and helps to reduce the stress. The results were in line with a previous study on examining the coping skills of parents who have children with disabilities [30]. In conclusion, the current study found that most of the parents in this study were positively accept their difficult situations while managing their children.

Meanwhile, the passive appraisal method was the least utilized coping skill among the parents. This finding was consistent with the previous reported evidence that parents of children with disabilities used a less passive appraisal method [6]. Passive appraisal or an emotion-focused strategy allowed parents to limit attention to a certain problem by doing or thinking other things [4]. Passive appraisal was also suggested as a problem avoiding coping skills adapted by the parents who could be destructive and eventually lead to family maladaptation behavior [31]. Hence, the results of the current study showed that parents of children with learning disabilities did not adapt passive appraisal as the main coping skill.

For psychosocial adjustments, the highest mean score in health care orientation domain in PAIS-SR showed that parents had the psychosocial adjustments. poorest Most parents of children with learning disabilities reported difficulties, and they did not receive appropriate information about health services provided for their children [32-33]. Therefore, the current study findings reiterate the need to improve health care orientation among parents children with learning disabilities. of Henceforth, the professional and counselor may have to provide health information for parents on various resources available to obtain appropriate health care for their

children. It will help parents to understand better their children's conditions, especially on ways to cope with difficult situations in everyday functioning. In certain instant, parents may seek medical intervention to deal with their child's emotional health condition. Studies among individuals with ADHD, a condition that often concomittenly occurred with learning disabilities reported that the anxiety and depression in adult ADHD can be managed with Bupropion medicine together with other bio-psycho-social intervention [34-35].

In relation to the total score of F-COPES and PAIS-SR, a significant relationship indicates the dynamic relationship between positive coping strategies and psychosocial adjaustment. Parents who used effective coping skills might have better psychosocial adjustments, and parents who have better psychosocial adjustment may develop better coping skills in their day to day living. The findings provided evidence of the usefulness of coping skills in parents' psychosocial adjustments. To further explore and strengthen the above observed relationship, additional analyses were conducted between the different domains of the F-COPES and total score of PAIS-SR. We believed that such individual domain relationship analyses might help us to understand the influence of different domains of coping skills towards the better psychosocial adjustments by the parents. The results of additional sub analyses showed that several domains of F-COPES had significant relationship with the total score of PAIS-SR. As there were no previous studies that investigated the effect of different coping skills on the psychosocial adjustments among parents, it was difficult for the current study findings to be compared an evaluated. Nevertheless, evidence on the effect of certain specific coping skills on psychosocial adjustments was documented in literature and hence it could be compared with the current study findings [34, 12]. For example, the current study findings agreed with a past study that showed parents who employed social support to manage their children with LD reported lowered stress levels and better adaptation in their living [36, 12]. Also, the results of the current study agreed with past evidence that the parents who sought spiritual support had less stress in managing their

psychological distress and exhibited better psychosocial adjustments [23]. Thus, the results of current study emphasized the relationship between the importance of good coping skills and healthy psychosocial adjustments of parents who take care of children with learning disabilities.

Limitations and strengths

The current study had a few limitations that need to be noted. First, this study involved parents of children with learning disabilities such as dyslexia and/or learning disabilities with concomitant disorders such as hyperactivity attention-deficit disorder (ADHD), high functioning autism and slow learner. It might be possible that there could be differences in coping skills and psychosocial adjustment between parents with different single and multiple diagnosis. In addition, the number of fathers and mothers were not equally distributed, and the perspectives of fathers and mothers in taking care their children are different. Nevertheless, the current study was primarily designed to study the relationship between the coping skills and psychosocial adjustments among parents, and it was not focused on looking at the different factors that might influence coping skills and psychosocial adjustments. A longitudinal study with multiple logistic regression analysis is warranted to understand the influence of various socio-demographic factors on coping skills and psychosocial adjustments.

Despite these limitations, the strength of the current study was the first study to highlight the importance of coping skills by parents over their psychosocial adjustments in daily living when handling children with learning disabilities. Moreover, the study population represented parents who were actively involved in looking after children with learning disabilities, which included those who are staying together with their children at home and spend more time in raising their children. In general, parents prefer to bring up their children on their own, hence the observed results of the study represented day to day reality and challenges of each parent.

Practical implications

The current study findings suggest several

clinical implications for clinicians, parents and researchers. For clinicians, it is necessary to consider measures to enhance better coping skills among parents as part of the management strategies during rehabilitation of children with learning disabilities. For parents, it is necessary to understand and practice better coping skills in their daily life while taking care of their children with learning disabilities. Researchers might consider the importance of coping skills and psychosocial adjustments encountered by parents as essential factors towards future studies on health promotion and health care management among parents who look after their children with learning disabilities.

Conclusion

In conclusion, the present study highlighted the relationship between coping skills and psychosocial adjustments of parents of children with learning disabilities. The effective coping skills used by parents were related to better psychosocial adjustments in Thus, everyday life. coping strategies psychosocial intervention manage to adjustments issues among parents of children with learning disabilities is essential for practitioners to include in the practice.

Acknowledgments

We would like to thank Dr Leonard Joseph for his valuable comments on this paper. We are also very grateful to the parents who are willing to participate in this study.

Funding

This research was funded by the Universiti Kebangsaan Malaysia (UKM) Top-Down University-Community Research fund, (KOMUNITI 2014-012).

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

1. National Joint Committee on Learning Disabilities. (1998). Operationalizing

the NJCLD definition of learning disabilities for ongoing assessment in schools. Asha, 40 (Suppl. 18). 22.

- Dąbrowska, A. & Pisula, E. Parenting stress and coping styles in mothers and fathers of preschool children with autism and down syndrome. Journal of Intellectual Disability Research. 2010 (54): 266-280.
- 3. Davis, N. O & Carter. A. S Parenting stress in mothers and fathers of toddlers with autism spectrum disorder: Associations with child characteristics. Journal Autism Developmental Disorder.2008(38): 1278-1291.
- 4. Haaksama, D. Coping strategies in parents raising children with disabilities. Master Theses, Paper 832. Available from http://thekeep.eiu.edu/theses/832. 2012.
- Bonifacci, P, Storti, M., Tobia, V., & Suardi, A. Specific learning disorders: A look inside children and parents' psychological well-being and relationships. Journal of Learning Disabilities. 2016 (49): 532-45.
- Moawad, G. EL. N. A. Coping strategies of mothers having children with special needs. Journal of Biology, Agriculture and Healthcare. 2012 (2): 77-84.
- Horsley, S., & Oliver, C. Positive impact and its relationship to well-being in parents of children with intellectual disability: A literature review. International Journal of Developmental Disabilities. 2013 (6): 1-19.
- Taanila, A., Yliherva, A., Kaakinen, M., Moilanen, I., & Ebeling, H. An epedemiological study on Finnish school-aged children with learning difficulties and behavioural problems. International Journal of Circumpolar Health. 2011 (70): 59–71.

- Plant, K. M. & Sanders, M. R. Predictors of care-giver stress in families of preschool-aged children with developmental disabilities. Journal of Intellectual Disability Research. 2007 (51): 109-124.
- Taymans, J. M. Legal and Definitional Issues Affecting the Identification and Education of Adults With Specific Learning Disabilities in Adult Education Programs. Journal of Learning Disabilities., 2012 (45): 5–16.
- Gupta, A & Singhal, N. Positive perceptions in parents of children with disabilities. Asia Pasific Disability Rehabilitation Journal. 2004 (15): 22-32.
- Li-Tsang, P. C. W., Kwai-sang Yau, M., & Yuen, H. K. Success in parenting children with developmental disabilities: Some characteristic, attitudes and adaptive coping skills. British Journal of Developmental Disabilities. 2001 (47): 61-71.
- Forde, H., Lane, H., McCloskey, D., McManus, V. & Tirney, E. Family support—an evaluation of an in-home support service. Journal of Psychiatric and Mental Health Nursing. 2004 (11): 698–704.
- Little, L. Differences in stress and coping for mothers and fathers of children with asperger's syndrome and nonverbal learning disorders. Pediatric Nursing. 2002 (28): 565–570.
- Churchill, S. S., Villareale, N.L., Monaghan, T. A., Sharp., V. L, & Kieckhefer, G. M. Parents of children with special health care needs who have better coping skills have fewer depressive symptoms. Maternal & Child Health Journal. 2010 (14): 47-57.
- Twoy, R., Connolly, P. M. & Novak, J. M. Coping strategies used by parents of children with autism. Journal of the American Academy of Nurse

Practitioners. 2007 (19): 25-260.

- 17. Pozo. P., Sarrà, E., & Brioso, A. Psychological adaptation in parents of with autism children spectrum disorders, A comprehensive book on autism spectrum disorders, Dr. Mohammad Reza Mohammadi (Ed.), ISBN: 978-953-307-494-8,In Tech Available from: http://www.intechopen.com/books/a-c omprehensive-book-on-autism-spectru m-disorders/psychological-adaptationin-parents-of-children-with-autism-spe ctrum-disorders. 2011.
- Trute, B. & Hiebert-Murphy, D. Family adjustment to childhood developmental disability: A measure of parent appraisal of family impacts. Journal Pediatric Psychology. 2002 (27): 271-80.
- Dyson, L. Unanticipated effects of children with learning disabilities on their families. Learning Disability Quarterly. 2010 (33): 43-55.
- Paster, A., Brandwein, D. & Walsh, J. A comparison of coping strategies used by parents of children with disabilities and parents of children without disabilities. Research in Developmental Disabilities. 2009 (30): 1337-42.
- Mulroy, S., Robertson, L., Aiberti, K., Leonard, H., & Bower, C. The impact of having a sibling with an intellectual disability: Parental perspectives in two disorders. Journal of Intellectual Disability Research. 2008 (52): 216-229.
- 22. Baker-Ericz6n, M.J., Brookman-Frazee, L., & Stahmer, A. Stress levels and adaptability in parents of toddlers with and without autism spectrum disorders. Research & Practice For Person with Severe Disabilities. 2005 (30): 194-204.
- 23. Durban, J. M., Rodriguez-Pabayos, A. M., Alontaga, J. V., Dolorfino-Arreza,

G. & Salazar, C. Coping strategies of parents of children with developmental delay: A qualitative analysis. Asian Journal of Social Sciences & Humanities. 2012 (1): 177-195.

- Mancil, G. R., Boyd, B. A. & Bedesem, P. Parental stress and autism: Are there useful coping strategies? Education and Training in Developmental Disabilities. 2009 (44): 523-537.
- 25. Venkatesh, K. G. Psychological stress and coping strategies of the parents of mentally challenged children. Journal of the Indian Academy of Applied Psychology. 2008 (34): 227-231.
- VanSolkema, J. M. Stress, coping, adaptation, and family hardiness in families with an adult child who is developmentally disabled and living in the parental home. Master Theses, Paper 439. Available from: http://scholarworks.gvsu.edu/theses/439. 1997.
- 27. Bailey, A. B. & Smith, S. W. Providing effective coping strategies and supports for families with children with disabilities. Intervention in School and Clinic. 2000 (35): 294-296.
- 28. Pottie, C. G. & Ingram, K. M. Daily stress, coping, and well-being in parents of children with autism: A multilevel modeling approach. Journal of family psychology. 2008 (22): 855-864.
- 29. Mattew, J. A. Family functioning and coping behaviors in parents of children with Autism. Journal of Child and Family Studies. 2009 (18): 83-92.
- 30. Pritzlaff, A. Examine the coping strategies of parents who have children

with disabilities. Master Theses. Available from: http://www2.uwstout.edu/content/lib/the sis/2001/2001pritzlaffa.pdf. 2001.

- Dunn, M. E., Burbine, T., Bowers, C. A. & Tantleff-Dunn, S. Moderators of stress in parents of children with autism. Community Mental Health Journal. 2001 (37): 39-52.
- Heiman, T. & Precel, K. Students with learning disabilities in higher education: Academic strategic profiles. Journal of learning disabilities. 2003 (36): 248-258.
- Jones, J & Passey, J. Family adaptation, coping and resources: Parents of children with developmental disabilities and behaviour problems. Journal on Developmental Disabilities. 2005 (11): 31-476.
- 34. Maszaidi, Z., Hatta, S. & Nurul Hazwani, H. Anxiety and mood regulating treatment for adult attention deficit disorder. *Medical & Health*. 2017 (12): 99-102.
- 35. Tha Deang, K., Sidi, H., Zakaria. H, Lope Adam, R., Das. S., Hazwani, H. et al. The novelty of Bupropion as a dopaminergic antidepressant for the treatment of adult attention deficit hyperactive disorder. *Current drug targets. EPub* 2017 (18).
- 36. Hassal, R., Rose, J. & McDonald, J. Parenting stress in mothers of children with an intellectual disability: The effects of parental cognitions in relation to child characteristics and family support. Journal of Intellectual Disability Research. 2005 (49): 405-418.

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Received: 11 July 2017

Accepted: 12 December 2017