



# The Association Between Parental Stress And Motor Performance Of Their Child With Learning Disabilities.

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# INTRODUCTION

Definition of learning disabilities(LD)

- A group of disorder
- significant problems in learning skills

reading  
(dyslexia)

Mathematical skill  
(dyscalculia)

writing  
(dysgraphia)

listening

speaking

CAN O

they are not the result of those conditions or influences.

- Co-mor
- other d
- mental r
- Extrinsic factor**(cultural differences, insufficient or inappropriate instruction).

# INTRODUCTION

LD manifests itself with a deficit in one or more areas of academic achievement, performance, behaviour,

negative impact on handwriting, academic achievement, activities of daily living, performance in sports and social participation (S Baerg 2011; [Engel-Yeger et al. 2011](#); [Fedewa & Ahn 2011](#)).

Does this factor causing stress to parents caring for children with LD

# INTRODUCTION

□ concerns about the development and future of the child (Glidden & Natcher, 2006)

□ challenge

increased in physical activity and... contributes... in academic... social... executive... individual with

What is the association between parental stress and motor performance of their child with LD?

assess... rearing their children (Hall 2012)

Ertegeer et al., & Ahn 2011)  
the... of the... (Glidden & Natcher, 2006)

# OBJECTIVE

to determine the association between parental stress among parents of children with learning disabilities (LD) and motor performance of their child.

# METHODOLOGY

## Sample Saiz

- 137 parents and their child with LD.

## Sampling method

- Simple random sampling

Sample size calculation

$$n = \frac{(Z \alpha/2)^2 p (1-p)}{2}$$

$$S = \frac{(1.96)^2 0.06 (1-0.06)}{0.05^2}$$
$$= 87 \text{ (Kish. L, 1965)}$$

## Type of study

- Cross sectional study

## Study Location

- NASOM, DAM, SPICES, IMPIAN, SK Maluri

# INCLUSION & EXCLUSION CRITERIA

## Caregivers

### • **Inclusion criteria for caregivers**

- Fathers or mothers/ caregivers male or female of individual with LD with aged between 3 to 16 years old
- Were either biological parents, adoptive parents, foster parent, relative or guardian of the individual with learning disabilities
- able to communicate in English or Bahasa Malaysia

### • **Exclusion criteria for caregivers**

- Reported having mental problem and substance abuse

## Children with LD

### • **Inclusion criteria for children with learning disabilities**

- Having learning disabilities regardless of first and secondary diagnosis
- Aged between 3-16 years old
- Fulfil the characteristic of high function such as able to walk independently and able to manage their personal care activity independently
- Able to follow command.

### • **Exclusion criteria for individual with learning disability**

- Mental retardation/intellectual disability which refers to limitations intellectual functioning manifesting in activity limitations and participation restrictions across life activity and functioning
- Need support or walking aids for mobilisation
- Deaf, Blind

# METHODOLOGY

## Instrument

- Malay version of Parenting Stress Index-Short Form (PSI-SF) (Alwi et al, 2016).
- Movement Assessment Battery for Children-2 (MABC-2) (Henderson, Sugden & Barnett, 2007)



Parental  
Distress


Difficult Child.

DOMAIN IN  
PSI-SF

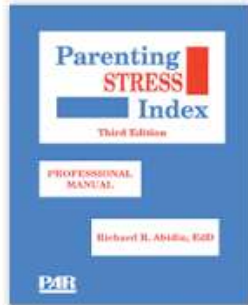
- Self administered questionnaire
- Likert scale
- **Higher scores indicate higher stress** in the respondent role as a parent

Parent-Child  
Dysfunctional  
Interaction

# Items of the MABC-2 test for the three age bands

Section	Age Band 1 (3 through 6 years)	Age Band 2 (7 through 10 years)	Age Band 3 (11 through 16 years)	
Manual dexterity	<p style="text-align: center;"><b>MABC-2 SCORING</b></p>  <p>Green zone</p> <p>Amber zone</p> <p>Red zone</p> <p style="text-align: center;"><b>High score indicate <b>no</b> movement difficulty</b></p>			Inserting pegs Angle with nuts bolts Drawing task 3
Aiming and				Catching with one hand Throwing ball at wall Untargeted target
Balance				One-board balance Walking toe-to-heel Jumping on mats forwards Hopping on mats Backwards Zig-zag hopping

# PROCEDURE



Consent form signed upon willingness to participate in this study

Malay version of PSI-SF

One month duration

MABC-2

Data analysis

(July 2015-October 2015)

(Ethics no: UKM NN-071-2014)

# DATA ANALYSIS

- Descriptive data analysis was used to determine the demographic characteristics of the subjects.
- The data obtained were analyzed using Statistical Package for Social Science (SPSS) version 21 software.
- Spearman's correlation was run to determine the association between parental stress and the child motor performance.

# RESULTS

# DEMOGRAPHIC CHARACTERISTIC

Demographic of participants	n	%
<b>Caregivers' Gender</b>		
Male	39	28.5
Female	98	71.5
<b>Caregivers' Age</b>		
<30	8	6.0
30-39	69	52.0
40-49	48	36.0
>50	8	6.0
Mean±SD	39.67±7.378	
<b>Financial status</b>		
Low(≤ 2299)	17	12.4
Moderate (2300-5599)	74	54.0
High (≥ 5600)	46	33.6

# DEMOGRAPHIC CHARACTERISTIC

Demographic of participants	n	%
<b>Marital status</b>		
Married	126	92.0
Widowed	8	5.8
Separated	3	2.2
<b>Level of Education</b>		
Primary education	5	3.6
Secondary education	42	30.7
Tertiary education	90	65.7

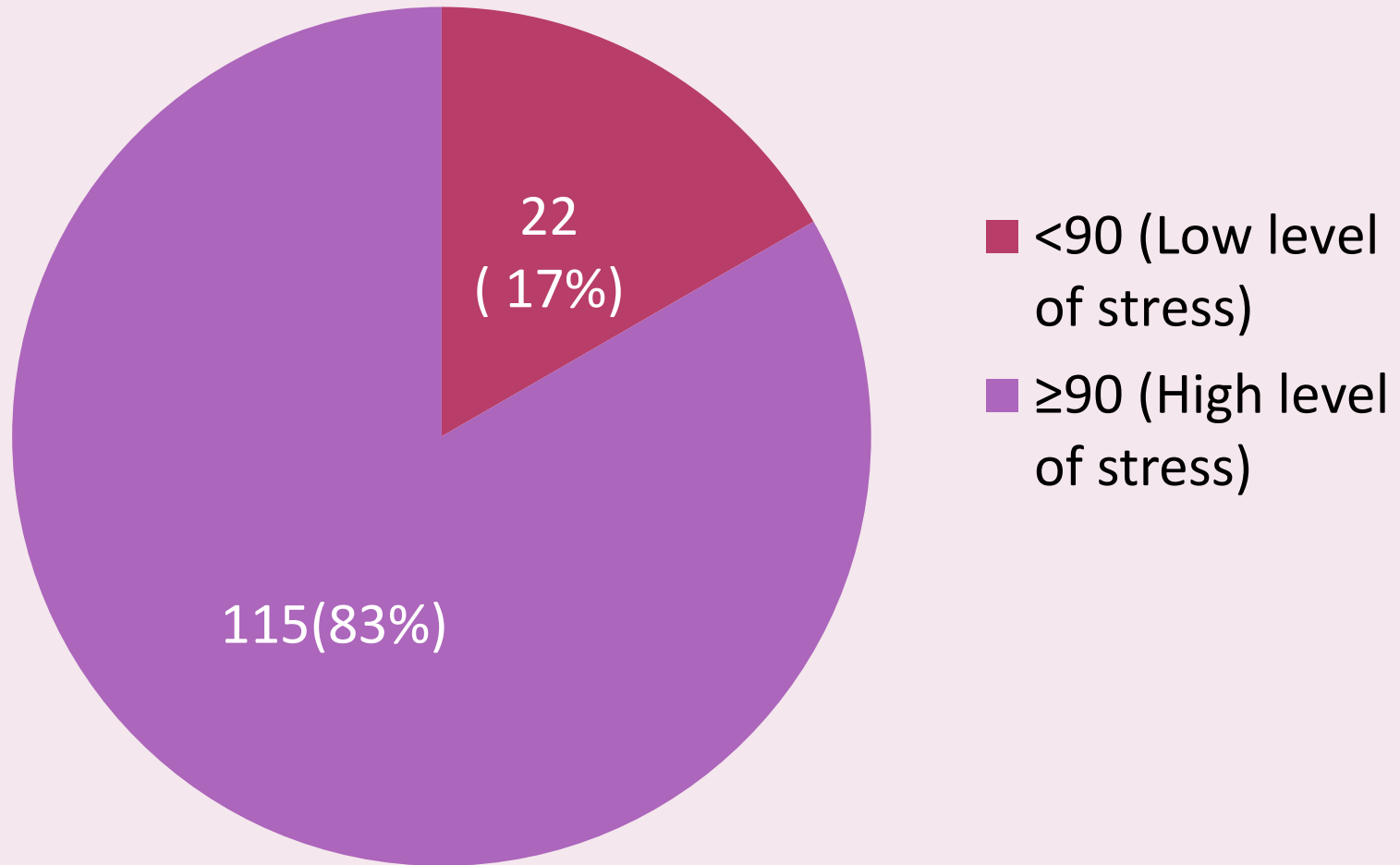
# DEMOGRAPHIC CHARACTERISTIC

Demographic of participant's child	n	%
<b>Child Age</b>	n	%
Preschooler	28	20.4
School aged children	89	65.0
Adolescent	20	14.6
Mean±SD		8.18±3.042
<b>Gender of the child</b>		
Boy	106	77.4
Girl	31	22.6
<b>Child Diagnosis</b>		
Dyslexia	63	46.0
Autism Spectrum Disorder	57	41.5
ADHD	8	5.8
Slow learner	9	6.6



# RESULT

PSI-SF TOTAL SCORE



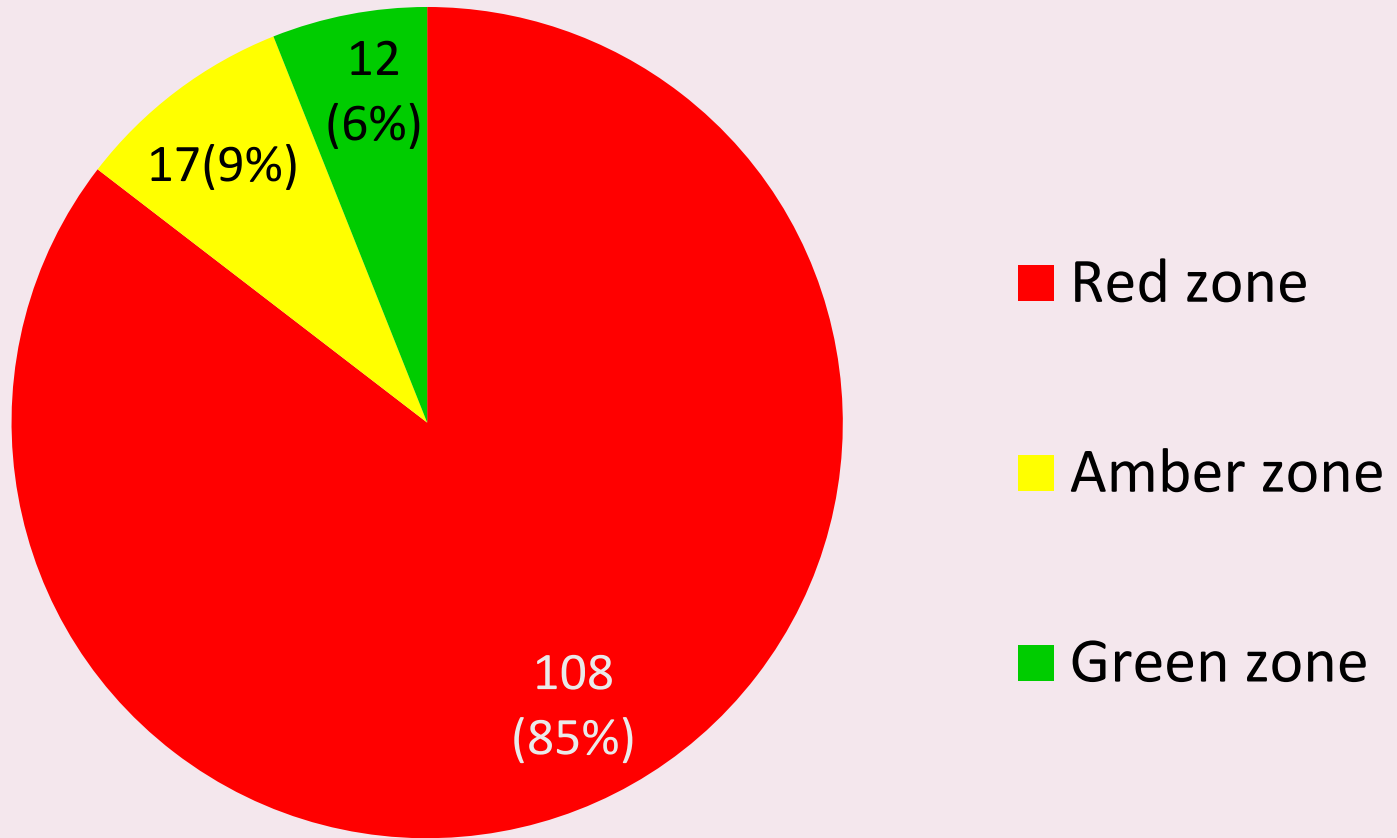
# RESULT

## PSI-SF SCORE BASED ON DOMAIN

Domain in PSI-SF	Mean	Std. Deviation	Score /max score
Parental Distress	38.86	8.710	0.648
Parent-Child Dysfunction Interaction	36.01	6.740	0.600
Difficult Child	33.62	7.694	0.560
Total score	108.96	18.264	

# RESULT

## MABC-2 TOTAL SCORE



# RESULT

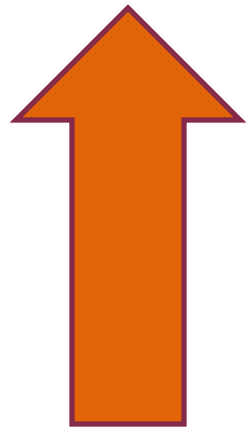
## MABC-2 SCORE BASED ON DOMAIN

MABC-2 Domain	Mean	Std. Deviation	Score/ max score
Balance	17.95	9.008	0.315
Manual Dexterity	13.34	7.467	0.234
Aiming & Catching	10.33	3.577	0.181
Total score	41.77	17.255	

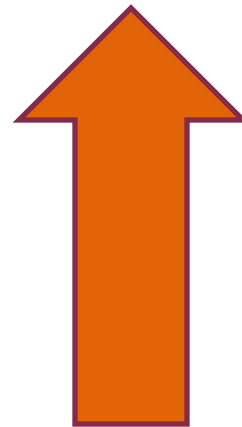
# KEY FINDINGS

The parental stress of caregivers raising a child with LD are positively correlated with their child motor performance,  $r_s (135)=0.236, p=0.01$ .

# DISCUSSION



parental  
stress of  
parents with  
disabilities



children's  
symptom  
severity  
related to  
disability

(Hall 2012)

# CLINICAL IMPLICATIONS

- Knowledge to parents to understand the parental stress among parents having children with LD.
- Assist health care professionals to plan an appropriate interventions for the parents and their children.
- Good multidisciplinary parent education program is important order to enhance the effectiveness on family function and social support for the parents of children with LD.

# DISCUSSION

Research in Developmental Disabilities 34 (2013) 1556–1571



Contents lists available at SciVerse ScienceDirect

Research in Developmental Disabilities



Review article

Stepping Stones Triple P-Positive Parenting Program for children with disability: A systematic review and meta-analysis

Cassandra L. Tellegen \*, Matthew R. Sanders

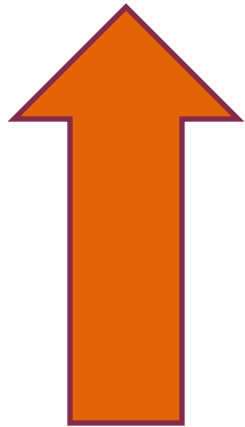
*Parenting and Family Support Centre, The University of Queensland, Australia*



□ Although a variety of educational module available for parents of individual with disabilities, it is important to suit the design, content and structure of the educational module into the local context (Tellegen & Sanders 2013)



# CONCLUSION



Parental stress  
of parents  
having children  
with  
LD



Motor  
performance  
of children  
with LD



Contents lists available at ScienceDirect

## Children and Youth Services Review

journal homepage: [www.elsevier.com/locate/childyouth](http://www.elsevier.com/locate/childyouth)



### **“At a moment, you could collapse”**: Raising children with autism in the West Bank

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## Research in Autism Spectrum Disorders

Volume 3, Issue 3, July–September 2009, Pages 670–684



### **“My greatest joy and my greatest heart ache”**: Parents’ own words on how having a child in the autism spectrum has affected their lives and their families’ lives

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- Park MS, Chung CY, Lee KM, Sung KH, Choi IH & Kim TW. 2012 Parenting stress in parents of children with cerebral palsy and its association with physical function. *J Pediatr Orthop B*. 21(5):452-6. doi: 10.1097/BPB.0b013e32835470c0.

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Dank U

Merci

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Köszi

спасибо

Grazie

Thank  
you

mauruuru

Takk

Gracias

Dziękuję

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Kiitos