











The impacts of parent-mediated home-based DIR/Floortime® intervention on children with Autism Spectrum Disorder and their parents in the Malaysian context: A preliminary mixed methods investigation









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Background: Parent-mediated interventions (PMI) are an underutilised but effective approach in improving children with autism spectrum disorder's (ASD) communication, social, self-care, play, and behavioural issues as well as promoting parents' quality of life and psychological wellbeing. The Developmental, Individual-difference, and Relationship-based (DIR)/Floortime[®] intervention approach is one of the PMIs often utilised with children with ASD and has been recommended to be offered to families of children with ASD by the Malaysia Ministry of Health.

Aim: The aim of this study was to investigate the impact/s of a parent-mediated home-based intervention program based on the DIR/Floortime® model on children with ASD's pretend play, child-parent interactions, parents' quality of life, psychological wellbeing and parenting competence, as well as its applicability among families of children with ASD in the pustaka.upsi.edu.my Perpustakaan Tuanku Bainun Kampus Sultan Abdul Jalil Shah

Malaysian cross-cultural context. The intervention program based on the DIR/Floortime[®] model was introduced to Malaysian parents of children with ASD and facilitated by an occupational therapist.

Method: The study involved ten parent/s-child with ASD dyads, aged between four to nine years old from Malaysia. A mixed methods approach involving a multiple single subject research design (SSRD) was used to investigate the study's aims. Child-parent interactions were evaluated through child-parent free play sessions and the child with ASD's pretend play was measured using the Test of Pretend Play (ToPP). Parents' quality of life, parenting competence and psychological wellbeing were assessed using the Malay translated versions of the Quality of Life in Autism Questionnaire (QoLA), Parenting Sense of Competence Scale (PSOC), and Bahasa Malaysia Depression Anxiety Stress 21-items (BM DASS-21), respectively. Key informant interview (KII) with parents were conducted to collect











os-4506832 pustaka.upsi.edu.my perpustakaan Tuanku Bainun pustaka TBainun qualitative data exploring the applicability and utility of implementing the parent-mediated home-based DIR/Floortime® intervention on children with ASD in a Malaysian cultural context. The visual and statistical analyses of the graphical data were used to determine the DIR/Floortime® intervention's impacts on child-parent interactions, while descriptive statistics were used to evaluate the changes in children with ASD's pretend play and parents' measures. Parents' interviews were analysed using the Qualitative Content Analysis (QCA) approach.

Results: Implementation of the intervention program based on the DIR/Floortime[®] model resulted in improved child-parent interactions in addition to increased parental levels of self-perceived quality of life, depression, anxiety and parenting competence. Parental level of stress increased slightly at the end of the intervention. Qualitative content analysis revealed five themes with several categories describing parental perceptions of (1) DIR/Floortime[®]

intervention, (2) challenges in implementation and engagement in DIR/Floortime postaka pustaka upsi.edu.my pustaka an Tuanku Banun Pustaka Banun pustaka Upsi.edu.my Kampus Sultan Abdul Jalil Shah pustaka TBainun putbul benefits and limitations of play for children with ASD, (4) improvements and changes in child and parents' abilities and skills, and (5) parents' views and suggestions about the DIR/Floortime intervention program.

Discussion: Through the implementation of parent-mediated home-based program based on the DIR/Floortime[®] approach, children with ASD received a more intensive intervention which led to notable improvements in their social, communication, self-care, and play skills. These improvements had a positive impact on parents' self-reported quality of life, psychological wellbeing and parenting competency. The majority of the Malaysian families with a child with ASD enrolled in the study were able to implement the DIR/Floortime[®] intervention as required, however, they encountered some challenges. To achieve maximum success, the parent participants received continuous professional supports via coaching, feedback and discussion sessions during the biweekly follow-up visits with the occupational









therapist. Several improvements could be made to increase parents' efficiency in hun



implementing the DIR/Floortime® program in a Malaysian context based on parents' suggestions, including providing parents with a semi-structured intervention manual or guidelines that explained the DIR/Floortime® program with clear examples, and increase the number of sample videos that demonstrated the implementation of DIR/Floortime® techniques that parents could view.

Conclusion: The study showed promising impacts of DIR/Floortime® intervention program on child-parent interactions, children's pretend play, parents' quality of life, parents' psychological wellbeing and parenting competence. The continued use of the DIR/Floortime® model in Malaysia is recommended along with further research that examines its effectiveness and feasibility in Malaysian contexts. Through this study, a parent-mediated home-based program based on the principles of the DIR/Floortime® model was shown to be applicable to practice among families of children with ASD in the Malaysian context.































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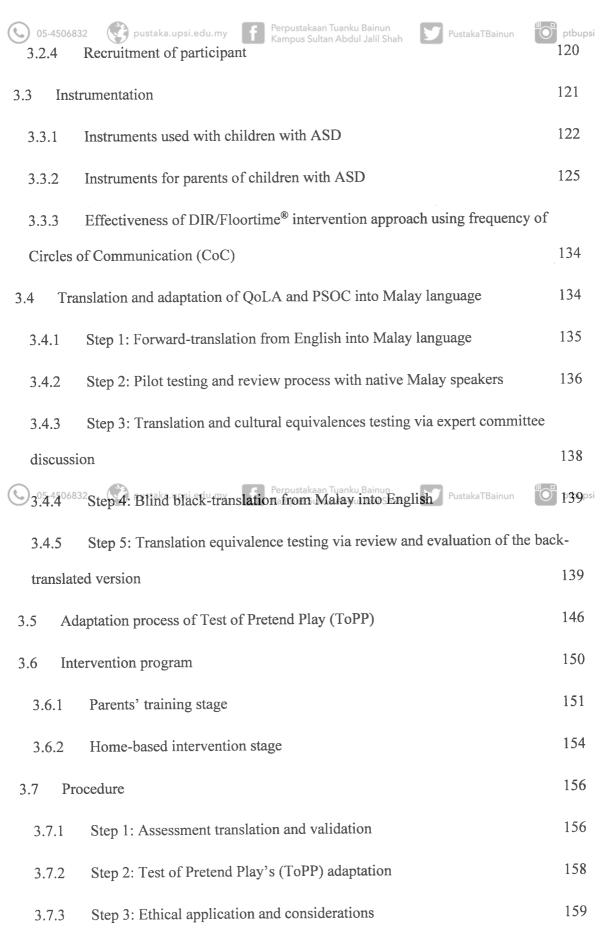








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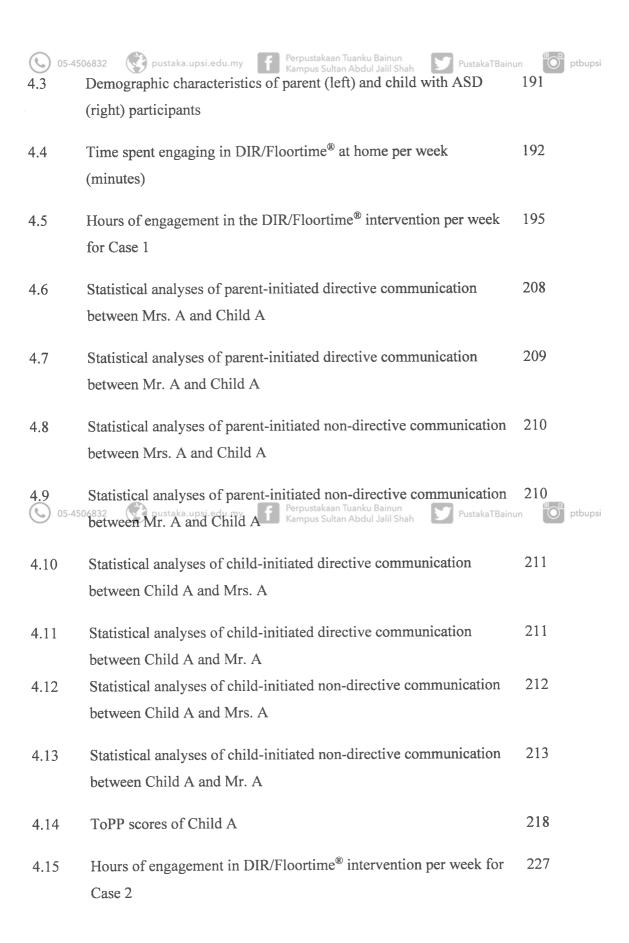






















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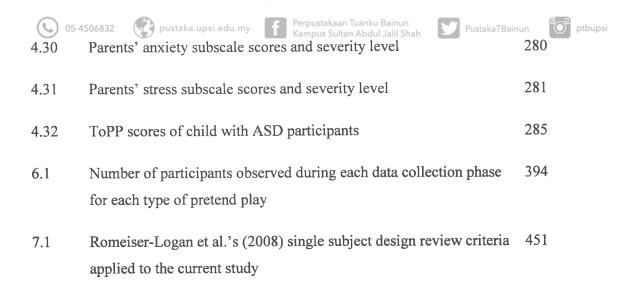






































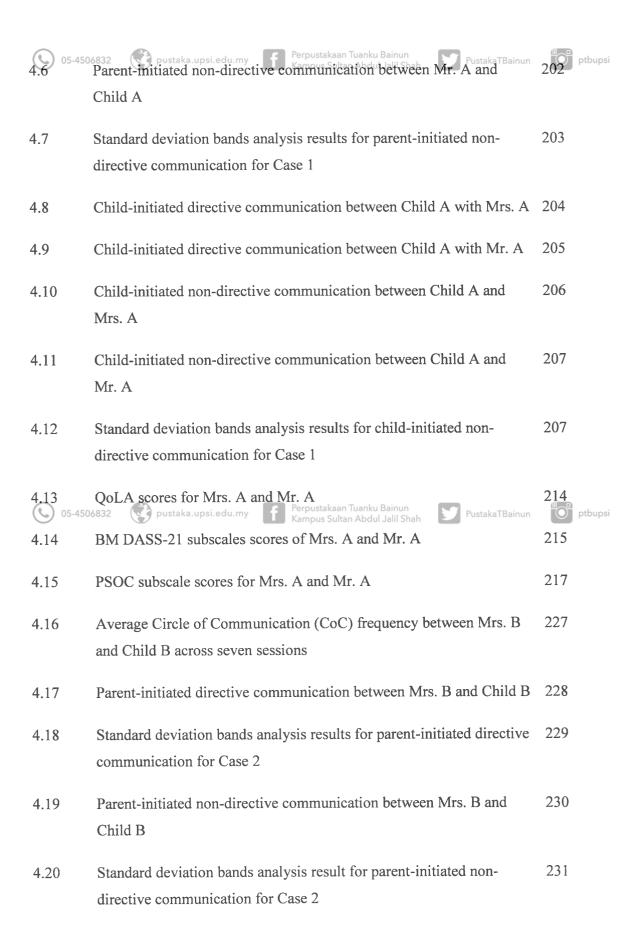
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List of Acronyms

AAA Assigning absent attribute

AJOT American Journal of Occupational Therapy

ANZSCO Australian and New Zealand Standard Classification of Occupations

ASD Autism Spectrum Disorder

AUD Australian Dollars

APA American Psychiatric Association

BM DASS-21 Bahasa Malaysia Depression Anxiety Stress Scale-21

BM-PSOC Bahasa Malaysia translated version of Parental Sense of Competence

BM-QoLA Bahasa Malaysia translated version of Quality of Life in Autism



Care-related quality of life instrument

CBR Community-based rehabilitation

CEM Caregiver Education Module

CES-D Centre for Epidemiologic Studies Depression Scale

ChIPPA Child-Initiated Pretend Play Assessment

CI-D Child-initiated directive communication

CI-ND Child-initiated non-directive communication

CMM Caregiver-Mediated Module

CMOP-E Canadian Model of Occupational Performance-Engagement

CoC Circle of communication



CarerQoL









ptbupsi











CPG Clinical Practice Guidelines

Depression Anxiety Stress Scale-21 DASS-21

Depression Anxiety Stress Scale-42 DASS-42

DC Difficult Child

Developmental, Individual-differences and Relationship-based DIR

Developmental, Individual differences and Relationship-**DIR-FCD**

Foundational Capacities for Development

Diagnostic and Statistical Manual of Mental Disorders, Fifth edition DSM-5

EPU Economic Planning Unit

Functional developmental level **FDL**

FEAS Functional Emotional Assessment Scale

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Perpustakaan Tuanku Bainun
Kampus Sultan Abdul Jalil Shah
Functional Emotional Development Questionnaire



Floortime play FTP

Global developmental delay **GDD**

Hours Hrs.

IAO Imagining absent object

Intra-class correlation ICC

Interdisciplinary Council on Developmental and Learning Disorders **ICDL**

ICF International Classification of Functioning, Disability and Health

Improving Parents As Communication Teachers **ImPACT**

IQR Inter-quartile range









