

## **A41 Diet quality and factor associated with body mass index among children with learning disabilities in Kelantan, Malaysia**

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Evidence suggests that children with learning disabilities (LD) have unhealthy body weight status (BWS) and poor dietary pattern. A cross-sectional study was conducted to determine diet quality and factors associated with body mass index (BMI) of LD children. This study recruited LD children who attend the Special Education Integration Program from nine schools located in districts with high, moderate and low socioeconomic status in Kelantan. Parents completed a Malay language self-administered questionnaire on socio-demographic, food frequency questionnaire and comprehensive parental feeding practices. Height and weight of children were measured by researcher to determine BWS. Diet quality was assessed using the Healthy Eating Index for Malaysians. Multiple linear regression analysis was applied to test the research hypothesis. A total of 259 children with LD aged 10.54±1.69years (68.0% males, 32.0% females) participated in this study. Their BMI was 18.38±4.79kg/m<sup>2</sup>; males (18.79±4.76kg/m<sup>2</sup>) had significantly higher BMI than females (17.52±4.77kg/m<sup>2</sup>),  $p=0.046$ . The prevalence of underweight, thin and severely thin were 11.9%, while 28.1% were overweight and obese. The diet quality scores was 48.15±9.23%, where 40.5% were at risk of poor diet quality. The total amount of daily energy intake was 1831.96±542.15 kcal with a mean carbohydrate intake (241.80±74.75g), protein intake (76.10±25.54g) and fat intake (63.42±21.33g). Parental feeding practice including pressure to eat ( $\beta=-0.282$ ), restriction of weight control ( $\beta=0.351$ ) and modelling ( $\beta=-0.162$ ), child age ( $\beta=0.222$ ), and childbirth weight ( $\beta=0.137$ ) were significantly associated with BMI ( $R=0.561$ ,  $R^2=0.315$ ;  $F(5,217)=19.972$ ,  $p<0.001$ ). The prevalence of poor diet quality and overweight/obesity were high among LD children. Establishing nutrition and health-related intervention programmes with the parent's involvement may help to prevent further rise of overweight/obesity.