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More dietary advice may be needed to support healthy body composition for children with cerebral palsy in Aotearoa New Zealand

R. Diaz-Rodriguez¹, M. Copeland¹, N.S. Hill³, F.E. Lithander^{1,2} and S.A. Williams^{2,4}

¹Department of Nutrition and Dietetics, University of Auckland, Auckland, New Zealand

²Liggins Institute, University of Auckland, Auckland, New Zealand

³Starship Child Health, Te Toka Tumai, Auckland, New Zealand

⁴School of Allied Health, Curtin University, Perth, Australia

The available literature on the nutritional status of children with cerebral palsy (CP) worldwide has identified high rates of malnutrition, specifically undernutrition⁽¹⁾. However, there is a current lack of clear CP-specific dietary guidelines for children with CP across all functional levels. Standard reference tools such as estimated energy requirement (EER) and recommended dietary intake (RDI) may overestimate requirements in children with CP, especially those with reduced mobility and activity levels. Furthermore, for children with severe CP, body composition data indicates higher risks of obesity and obesity-related conditions⁽²⁾. There can be a wide range of functional abilities, classifiable with tools such as the Gross Motor Function Classification System (GMFCS) and the Eating and Drinking Ability Classification System (EDACS). The majority of nutrition-related CP literature focuses on children requiring assistance for feeding (EDACS IV-V) with little information available for children with higher levels of functional independence. The aim of this study was to determine whether children with CP had received any prior dietary guidance for healthy body composition and to summarise the type of advice received. Children aged 5-12 years and their whānau were invited to participate in a study where a purpose-developed questionnaire captured their history of receiving tailored dietary recommendations for CP. Body composition was assessed via whole-body dual-energy X-ray absorptiometry scan. Nine participants (6 males, median age: 10y, n = 2 Māori), across GMFCS levels I-IV and EDACS levels I-III took part in the study. Out of 9 children, 5 (55%) indicated that their child had never received dietary advice, 3 of whom were classified as obese or overweight based on growth chart percentiles using their measures of body fat percentage, 1 was classified as underweight and 1 was within the healthy ranges. Of the 4 who had previously received advice, its nature was reported as in support of weight gain (n = 3), and weight loss (n = 1). All 4 received dietary advice from a dietitian and 1 reported some additional advice from a pediatrician and/or orthopedic doctor. Two of the children who had received dietary advice fell within a healthy body fat percentage based on the growth chart percentiles at the time of the study, while the other two were classified as overweight or obese. The results indicate the importance of developing clear dietary guidance for children with CP which may differ from that for typically developing children, particularly depending upon CP subtype diagnosis and functional level, in order to support healthy body composition.

Keywords: children; body fat percentage; nutrition

Ethics Declaration

Yes

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References

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