Energy and Protein Intake-Related Risks Affected the Occurrence of Stunting Among Young Children

Atikah Rahayu^{1,*}, Fahrini Yulidasari¹, Lia Anggraini¹, Fauzie Rahman², Nur Laily², Ayu Riana Sari², Meitria Syahadatina Noor³, Andini Octaviana Puteri³, Dian Rosadi⁴, Vina Yulia Anhar⁵

ABSTRACT

Alang river has been one of the river banks to contribute the most to fish production in the Banjar district. However, despite the seemingly protein-rich diet of its inhabitants, this area still has a high prevalence of stunting. This research was therefore conducted to identify the factors that might affect the occurrence of stunting among young children within the area. This cross-sectional research conducted from May to July 2019 recruited 96 dyads of mother and her young child as participants. The children were then analyzed for their adequacy of energy and protein intake based on the recommended dietary allowances (good vs. poor adequacy) and the occurrence of stunting based on the 2006 World Health Organization anthropometry standard (stunted vs. not stunted). Other variables of the children (sex, history of low birth weight, history of exclusive breastfeeding) and variables related to family members (total number of family members, maternal height, paternal height, family income, maternal educational level, and paternal educational level) were also analyzed. Young children with poor adequacy of energy intake had 9.133 times higher risk of stunting than young children with good adequacy of energy intake (p=0.001). The young children's energy and protein intake played a significant role in determining the occurrence of stunting, implying the importance of this macronutrient for the growth and development of young children. The education about the children's nutritional needs for mothers with young children should be delivered with a better design that includes easy-to-remember and immediately applicable local wisdom based methods for the children's nutritional fulfillment of the children's nutritional need.

Keywords: young children, stunting, energy intake, riverbank

¹Department of Nutrition Public Health Study Program Faculty of Medicine, Lambung Mangkurat University, Banjarmasin, Indonesia

²Department of Health Policy Administration Public Health Study Program Faculty of Medicine, Lambung Mangkurat University, Banjarmasin, Indonesia

³Department of Maternal and Child Health Public Health Study Program Faculty of Medicine, Lambung Mangkurat University, Banjarmasin, Indonesia

⁴Department of Epidemiology Public Health Study Program Faculty of Medicine, Lambung Mangkurat University, Banjarmasin, Indonesia

⁵Department of Health Promotion Public Health Study Program Faculty of Medicine, Lambung Mangkurat University, Banjarmasin, Indonesia

^{*}Corresponding author. Email: nindya,fitria@gmail.com