Nutrition in Indonesia toddlers and preschools: understanding challenges and strategies

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Abstract: Nutrition Virtual Symposium 2021 - Speaker

Children age 1–3 years (toddler) and age 4 – 6 years (preschool) are placing an important role for maintaining their rapid development, especially in language, motoric, socio-emotional and cognitive performances. This rapid development needs specific support from all aspects, i.e. health, stimulation and nutrition in which all accompanied with good care and love. Immunization should be prioritized to maintain their health, especially from diarrhea and ARI, while stimulation is supported by attending early schooling program and informally by playing. On top of that, daily nutrient intake adequacy is urgently mandatory to support their rapid development in which is struggled by difficulty to fulfill due to the transition phase from complementary food to family food, transition from dependency to eat to learn to eat by themselves, and the arising of autonomy sense which lead to picky eating. There is surely rapid development of toddler and preschool age children, especially related to human brain development. Poor development among under-five children in Indonesia in 2010 is ranged 40 – 59%. Global data shows that there is triple burden of malnutrition, and amongst improper behavior, the two highest clinical symptoms are hyperactivity and showing anger when displeased. This shows that children need nurturing care in which has its contribution through the life course.

One of the nurturing care component is adequate nutrition through dietary intake that is needed to support child development stages, especially to support cognitive and sensory development. Clear evidence found that exclusive breast-feeding, intake of fruits, vegetables, carbohydrate composed meals, micronutrient supplements, and fortified feds are needed to promote good nutritional status, beside the need to enhance knowledge on dietary practices. Especially for vitamin D among preschoolers, girls, living in urban area, aged less than 24 months or over 35 month, and born from mothers deficient in vitamin D show higher prevalence of vitamin D deficiency. Regarding to child development, there is a hypothesized relations between poverty, stunting, child development and school achievement. Especially for vitamin D among preschoolers, girls, living in urban area, aged less than 24 months or over 35 month, and born from mothers deficient in vitamin D show higher prevalence of vitamin D deficiency.

Regarding to child development, there is a hypothesized relations between poverty, stunting, child development and school achievement. Evidence from a backward district of India shows that there are gender differences and age group variations in the nutritional status of under-five children who are

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developmentally challenged. Besides, undernutrition is major problem with vulnerable children in rural area who suffer from developmental delay.
Regarding to child nutritional status, data from UNICEF/WHO and RISKESDAS show that stunting is still the main problem in Indonesia. While there was higher proportion of children aged 6–9 months who are suspected with abnormal mental development based on SEANUT study.
Dietary modelling is needed to optimize nutrient adequacy and development. Study shows that exclusive breast feeding and fortified food are beneficial to promote child nutritional status. And, there is contribution of milk beverages to nutrient adequacy of toddler and preschool children, lesson-learned from the Philippines.

**Keywords:** dietary modelling, Indonesia, nutrition adequacy, preschooler, toddler