

Correlation of Nutritional Status and Anemia Among School-Aged Children in Indonesian Urban Area

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Abstract : Background: Prevalence of anemia among school-aged children is relatively high (25.4%). This condition can affect children's life, including cognitive function. One of the most common factors that is associated with anemia in children is nutritional status. This simple indicator will be very helpful in identifying more population at risk. The aim of this study is to correlate the clinical implication of nutritional status to the prevalence of anemia in children, with intention to determine a more effective nutritional status indicator in detecting anemia. Method: Anthropometric and haemoglobin status were gathered from children between 5 to 7-years-old in one of the urban areas in Jakarta in 2012. We identified children with haemoglobin level under 11.5 as anemia and correlated them to their WHO z-score from each of these indicators: Body Weight for Age (normal weight and underweight), Height for Age (not stunted and stunted), and Body Mass Index for Age (not wasted and wasted). Results: A total of 195 children were included in this research and 57 of them (29,2%) were diagnosed as anemia. The majority of the children had good nutritional status, however, 30 (15,4%) of them were found to be underweight, 33 (16,9%) were stunted, and 1 children (0,5%) was wasted. There were no overweight result found in this population. From the three nutritional status indicators, none proved to be statistically significant in relation to the incidence of anemia ($p>0.05$). Out of 33 children who were diagnosed as stunted, 36.36 % were found to have anemia, in comparison to 27,7% of children who were not stunted. Meanwhile, among 30 children who were diagnosed as underweight, 33,3 % of them were anemic whereas only 28,4% of the normal weight group were anemic. Conclusion: In this study, there is no significant correlation between anemia with any nutritional status indicator. However, more than a third of the stunted children are proven to have low haemoglobin status. The finding of stunting in children should be given more attention to further investigate for anemia.

Keywords : school-aged children, nutritional status, anemia, pediatrics

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