



ABSTRACT

Zinc Deficiency Among Lactating Mothers in Jakarta : Associated Factors

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Background: Deficiency of zinc is prevalent worldwide mostly in developing countries. However, its prevalence among vulnerable group such as lactating mothers is still unknown in most populations.

Objectives: This study aimed to determine the prevalence of zinc deficiency among lactating mothers in Jakarta and factors that influence it.

Methods: A cross sectional study was conducted in Puskesmas Kecamatan Grogol Petamburan, West Jakarta and Puskesmas Kecamatan Cilincing, North Jakarta between February and April 2019. A total of 75 lactating mothers at 3–6 months postpartum, aged 20–40 years old were recruited using consecutive sampling method. Subjects were interviewed for education levels, occupation, physical activity, types of breastfeeding (exclusive or not), and numbers of parity. Dietary assessment of zinc and protein was carried using semi quantitative food frequency questionnaire (FFQ). Weight and height were measured to assess the body mass index (BMI). Blood samples were taken to analyze serum zinc concentrations. Descriptive analysis, one way ANOVA, and unpaired t-test were used, p-values ≤ 0.05 were considered significant.

Results: The mean of serum zinc was 62.33 ± 11.89 and zinc deficiency was found in 76% of the subjects. There were no significant differences of serum zinc related to education levels, occupation, types of breastfeeding, number of parity, zinc intakes, protein intakes, and categories of BMI. Significant difference of serum zinc was found between levels of daily physical activity ($p = 0.008$) – light, moderate, and vigorous.

Conclusion: Zinc deficiency was prevalent among lactating mothers in Jakarta. There was a significant difference of serum zinc between different levels of daily physical activity.

Keywords: zinc, lactating, breastfeeding, physical activity

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