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## **ABSTRACT**

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THE RELATIONSHIP BETWEEN THE LEVEL OF ENERGY ADEQUACY, MACRONUTRIENTS, ZINC AND IRON (FE) AND THE INCIDENCE OF UNDERWEIGHT IN TODDLERS (OBSERVATIONAL STUDY ON TODDLERS AGED 12-59 MONTHS IN SUKAASIH VILLAGE, SINGAPARNA DISTRICT, TASIKMALAYA REGENCY, 2024)

Underweight is a condition in which the weight of toddlers is not in accordance with their age. One of the causes of underweight in toddlers is inadequate food intake or nutrient intake. Low levels of nutritional adequacy over a long period of time can increase the risk of underweight. The purpose of this study is to find out and analyze the relationship between the level of energy adequacy, macronutrients, zinc, and iron (Fe) and the incidence of underweight in toddlers. This study uses a cross sectional study. Sampling of toddlers was carried out by proportional random sampling from all posyandu with a sample of 82 subjects. Data collection was carried out using 3x24-hour food recalls out of order. Data analysis using the chisquare test. The results showed the relationship between the level of energy adequacy and the incidence of underweight (p = 0.000), the level of carbohydrate adequacy with the incidence of underweight (p = 0.000), the level of protein adequacy with the incidence of underweight (p = 0.038), the level of fat adequacy with the incidence of underweight (p = 0.002), zinc adequacy level with underweight incidence (p = 0.026), and iron adequacy level (fe) with underweight incidence (p = 0.048). The conclusion of this study is that there is a relationship between the level of energy adequacy, macronutrients, zinc, and iron (fe) and the incidence of underweight in toddlers aged 12-59 months. The suggestions in this study are expected for respondent mothers to regularly visit posyandu and increase information in providing their children's food intake with more nutritious and more diverse foods.

Keywords: Underweight, Macronutrients, Zinc, Iron.