

A22 Food security status and nutritional status among undernourished children aged 24 to 48 months old in Taska Seremban, Negeri Sembilan

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Optimal nutrition allows children to grow, develop, learn, and play while malnutrition affects their futures and leaves young lives hanging in the balance. This study aimed to determine food security status and nutritional status among undernourished (underweight, stunting or wasting) children aged 24 to 48 months from B40 households in Seremban. A total of 85 undernourished children (food secure=38.8%, food insecure=61.2%) with a mean age of 39.88 months (SD=5.36) from 10 Taska Seremban were recruited based on cluster sampling method. Socio-demographic information, anthropometric measurements (weight and height), food security, 3-day 24-hour dietary recall, and dietary diversity were assessed. The prevalence of underweight only, stunting only, wasting only, underweight and stunting, and underweight and wasting were 21.2%, 49.4%, 17.6%, 2.4% and 9.4%, respectively. Nearly one third of them (29.4%) had low birth weight. The percentage of food insecurity among those underweight, stunted, and wasted were 64.3%, 56.8%, and 78.3%, respectively. There was a significant association between food security status and low birth weight ($p<0.05$). Children from food secure households (700.65 ± 93.98 kcal/day) consumed significantly higher energy intake compared to those from food insecure households (573.16 ± 177.10 kcal/day; $p<0.001$). Those from food secure households had significantly higher intakes of all macronutrients (carbohydrate, protein and fat) and most of the micronutrients (vitamin A, thiamine, riboflavin, niacin and iron), except for folate, vitamin C, calcium, and zinc compared to children from food insecure households ($p<0.05$). There was no significant difference in dietary diversity score between children from food secure and food insecure households. In conclusion, this study found that food insecurity had a great impact on the nutritional status of pre-schoolers. Future intervention programs should improve dietary intakes especially among food-insecure children.