

B26 Dietary patterns of preschoolers aged 3 to 6 years old in Peninsular Malaysia: Findings from SEANUTS II Malaysia

Nurul Hasanah HC, Nur Zakiah MS, Wong JE and Poh BK on behalf of the SEANUTS II Malaysia Study Group

Center for Community Health Studies (ReaCH), Faculty of Health Sciences, Universiti Kebangsaan Malaysia

A posteriori dietary pattern analysis is a data-driven approach that uses statistical method to derive dietary pattern based on participants' dietary intake and is very useful to understand the whole diet. Nevertheless, research using this method to examine diet of preschool children is scarce in Malaysia. This study aims to determine dietary patterns and their relationships with sociodemographic factors among 3 to 6 years old Malaysian preschoolers. This study, which involved 645 preschoolers in Peninsular Malaysia, was part of the South East Asian Nutrition Surveys (SEANUTS II). A single, triple-pass 24-hour dietary recall method was used to assess dietary intakes. Dietary patterns were determined using Principal Component Analysis (PCA). Sociodemographic information was also obtained, including ethnicity, parents' body mass index (BMI) and socioeconomic status. Majority of the subjects were males (51.5%) with mean age of 5.1±1.0 years. PCA identified five dietary patterns, namely 'healthy', 'carbohydrates', 'high salt and sugar' (HSS), 'western foods' (WF) and 'sugary drinks and legumes' (SDL), which explained 10.4%, 10.1%, 9.2%, 9.0% and 8.6% of variation in food intake, respectively. Malays showed significantly higher adherence to HSS ($p<0.001$) and SDL ($p=0.006$) patterns compared to other ethnicities. Age ($r=-0.134$; $p<0.01$) was correlated with SDL pattern that included sugary drinks, dairy products, legumes, nuts and seeds. Higher maternal BMI ($r=-0.116$; $p<0.01$) was correlated with lower intake of WF pattern which is characterized by franchised foods, processed foods, chocolates, sweets, jellies and ice cream. Lower household income ($r=-0.108$; $p<0.01$) and bigger household size ($r=0.116$; $p<0.01$) were correlated with HSS pattern that was high in spreads, condiments, flavourings, chocolates, sweets, jellies and ice cream intake. Our results show that age, maternal BMI, household income and household size were correlated with preschoolers' dietary pattern. Therefore, we opine that it is important to consider sociodemographic characteristics of the target group when designing dietary interventions and strategies.

Table 1 Food groups with factor loadings within each dietary pattern.

Dietary patterns	High intake of	Low intake of
Healthy	 Fruits (0.57)  Fish & seafoods (0.55)  Vegetables (0.50)	 Franchised fast foods (-0.53)
Carbohydrates	 Starchy vegetables (0.76)  Cereals, brown rice, wholegrains bread (0.70)	
High salts and sugar (HSS)	 Spreads, condiments and flavourings (0.66)  Chocolates, sweets, jellies & ice cream (0.31)	 Noodle dishes (-0.56)
Western foods (RF)	 Franchised fast foods (0.41)  Processed foods (0.63)  Chocolates, sweets, jellies & ice cream (0.54)	
Sugary drinks & legumes (SDL)	 Sugary drinks (0.65)  Dairy products (0.54)  Legumes, nuts & seeds (0.51)	