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AN ASSESSMENT OF CALORIE INTAKE AND FACTORS ASSOCIATED WITH FOOD CONSUMPTION

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Medical students experience time constraints and stress in studying thus they tend to have an imbalanced diet. This cross-sectional study assessed the calorie intake and factors associated with food consumption among second year medical students in the Faculty of Medicine and Health Sciences of Universiti Malaysia Sarawak (UNIMAS). A total of 101 students completed the self-administered questionnaires regarding the knowledge and attitude about food consumption, factors affecting food intake and a 24-hour dietary recall. 52.5% of participants had normal BMI. 4.0% were Obese Class II. The participants had overall good knowledge on food consumption, calorie content, hygienic food preparation and balanced diet. 73.3% took breakfast. 80.2% considered to reduce fast food consumption. 76.2% consumed food for the tastiness. A biological factor was the most important factor for food consumption such as types of food, amount and frequency of meals. An environmental factor was the most common factor in term of choice of outlet. There was a strong positive correlation between respondents' knowledge and total calorie intake ($p < 0.05$). The attitude and body mass index was significantly related. Knowledge played an important role in calorie intake. The results suggested that the subjects were more concerned about the taste of the food rather than the cost and nutritional value. Calorie intake differed between the sexes.

DEVELOPMENT OF NOVEL BIMETALLIC CATALYST FOR OXIDATION REACTION

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Bimetallic copper-cobalt catalyst provides synergistic effect from two metals by varying the metal ratios. This will tune the catalyst properties such as size, structure and morphology. The development of inexpensive catalyst is based on abundantly available transition metal. Activated carbon act as support to increase the corrosion resistance and surface area. Selective oxidation of benzyl alcohol to benzaldehyde by heterogenous catalyst such as bimetallic copper-cobalt supported on activated carbon has major advantages over hydrolysis of benzyl chloride to produce benzaldehyde. It provides a green and sustainable route by eliminating trace amount of chlorine, ease of recovery, reusability and thermal stability.

(left) activated carbon (right) bimetallic copper-cobalt supported on activated carbon.

