

Demographic, eating behaviour characteristics and fruit and vegetable intake in children aged 4 to 6 years: Are they related?

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INTRODUCTION

High consumption of fruit and vegetables (FV) in daily diets have been associated with reduced risks of chronic diseases^{1,2}. However, intake of FV among children are below recommendation in many countries worldwide^{3,4}. It is important to determine the factors affecting children's intake of FV, so that interventions can be suggested. Although there were studies investigated these factors, results were inconsistent. Additionally, limited studies were done to specifically determine the relationship between children's eating behaviour and FV intake. Therefore more studies need to be done in order to understand more about the relationship.

METHODOLOGY

278 children aged 4 to 6 years participated in this study. A set of parent-completed questionnaire was used to collect demographic, child's eating behaviour characteristics (using children's eating behaviour questionnaire (CEBQ)⁵ that measured food responsiveness, food enjoyment, emotional overeating, satiety responsiveness, slowness in eating, emotional undereating and food fussiness. FV intake were also measured using 8-point scale.

RESULTS

Results found that the mean intake of total vegetables was 0.17 serving/day, and total fruits was 0.21 serving/day.

There was a significant difference between gender in vegetable intake ($U=8282$, $p=0.04$), where girls ate more vegetables than boys. Parents with secondary education level had children with higher intake of vegetable compared to parents with tertiary education level ($U=6597$, $p<0.001$).

Children whose parents frequently buying FV consumed more fruits ($r_s = 0.15$, $p=0.01$) and vegetables ($r_s = 0.44$, $p<0.001$). Besides, family mealtime also has a significant correlation with children's vegetable intake ($r_s = 0.34$, $p<0.001$).

Fruit intake was positively correlated with food responsiveness ($r_s = 0.19$, $p = 0.001$), emotional overeating ($r_s = 0.14$, $p = 0.03$) and food enjoyment ($r_s = 0.13$, $p = 0.03$). While vegetable intake was negatively correlated with food responsiveness ($r_s = -0.12$, $p = 0.04$), satiety responsiveness ($r_s = -0.29$, $p < 0.001$) and food fussiness ($r_s = -0.12$, $p = 0.05$).

DISCUSSION AND CONCLUSION

Results demonstrated that FV intake were below the recommendation among Malaysian children. Our results confirm the previous findings that demographic characteristic (gender, parental education, frequency of buying FV and family mealtime) are among factors in determining children's FV intake. Additionally, food responsiveness, emotional overeating and food enjoyment were significantly associated with fruit intake while food responsiveness, satiety responsiveness and food fussiness were significantly associated with vegetable intake.

References:

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