

ORIGINAL ARTICLE

FOOD INSECURITY SITUATION IN MALAYSIA: FINDINGS FROM MALAYSIAN ADULT NUTRITION SURVEY (MANS) 2014

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ABSTRACT

Food insecurity affects food intake, and it could prevent an individual from consuming enough nutritious food to support and maintain health. The aim of this paper is to determine the prevalence and factors influencing food insecurity among Malaysian households. In 2014, the Malaysian Adult Nutrition Survey (MANS) was carried out, and one of the components measured was food insecurity. Six out of sixteen questions from the food security core-module questionnaire were adopted and answered by 2962 adults. The results showed that about 25.0% adult experienced food quantity insufficiency, 25.5% had food variety insufficiency, 21.9% practised reduced size of the meal, and 15.2% skipped main meal due to lack of money to spend on. For the parents, 23.7% only rely on cheap food to feed children, and 20.8% could not afford to purchase various foods to feed their children. Location, strata, race, level of education, working status and household income shows significant difference while none of the nutritional status components found to be difference in all six parameters of food insecurity measured. Logistic regression with adjusted odds ratios discovered race, education level and household income were related to risk to all six parameters of food insecurity. In conclusion, food insecurity can be a serious problem in Malaysia. An effective and comprehensive effort by the government in terms of policy solution is required to increase education level and ensure an adequate income for every household. Therefore, future research should focus on some of those promising policy solutions and at the same time, study the other possible underlying factors that may lead to food insecurity.

Keywords: Food Insecurity, Malaysia, Adult, Nutrition Survey

INTRODUCTION

Food Insecurity is defined as "limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways"¹. Some researchers interpreted food insecurity in two aspects. First is limited or uncertain availability of nutritionally adequate and safe foods and the second is limited or uncertain ability to acquire acceptable foods in socially acceptable ways². For decades, food insecurity has always associated with poverty and undesirable health outcomes³. Generally, poverty defined as 'individuals or families whose resources are so small as to exclude them from the minimum acceptable way of life of the member state in which they live'⁴.

Since 1970, Malaysia had successfully reduced the incidence of poverty from 52.4% to 5.1% in 2002, and the total number of poor households declined from 1.6 million to 267,000 over this 32-year period⁵. However, this data does not mean that the Malaysian households are low or free from food insecurity situation. The differences in socio-demographic status in a country could also give an impact on household food insecurity. The demographic indicators that may be related to household food insecurity include sex, age,

source of income, household type, homeownership, marital status, immigrant status, and aboriginal status⁶. However, a study conducted in Canada had found that even when these factors were taken into account, household income always remains one of the significant factors associated with food insecurity⁶.

One of the earlier impacts of household food insecurity was of poor nutritional status. Limited or uncertain access to enough nutritious food leads to this impact among those who experienced household food insecurity for a certain length of time⁷. Previous studies tried discovering the coexisting of food insecurity and nutritional status. Surprisingly, some of the studies conclude that significant differences in overweight status between food-insecure and food-secure children may not be observed. Still, the prevalence of overweight remains relatively higher among food-insecure children⁸. A study among adults reported that insecure food group were significantly more likely to be obese as those who were food secure⁹. In Malaysia, Zalilah and Khor pointed out that more than 50% of food-insecure women were overweight and obese compared to women in food-secure households in rural area¹⁰.

Despite the relationship between socio-demographic and nutritional status with food insecurity was reported in many journals, there are limited researches regarding food insecurity in Malaysia, especially at the national level. Previous research focuses more on a specific group, especially children and women and certain socio-demographic levels such as rural area and lower/middle-income group^{11,12,13}. In 2014, the Ministry of Health Malaysia had carried out a population-based cross-sectional study with one of the scopes is to investigate food insecurity among Malaysian. Therefore, this paper will discuss the finding from this survey in terms of prevalence and factors influencing food insecurity among Malaysian households.

METHODOLOGY

The Malaysian Adults Nutrition Survey (MANS) was a cross-sectional population survey conducted nationwide from March until June 2014. The sampling frame was provided by the Department of Statistic (DOS) Malaysia using National Population and Housing Census 2010 data. A multistage stratified cluster sampling method was applied. The selection of respondent started from enumeration blocks (EBs) to living quarters (LQs), to eligible persons in a household and lasted the person to be interviewed. The eligible person is an adult aged 18 to 59 years old, not pregnant or breastfeeding at the time of the interview, not on specific diet due to illness and living in the house at least one month prior to interview. The certificate of ethical approval was awarded by the Medical Research and Ethics Committee (MREC), Ministry of Health of Malaysia. Detail explanation on the methodology of MANS 2014 was published in the technical report available online.¹⁴

Trained research assistants interviewed the respondents to collect information on socio-demographic and food insecurity. Food insecurity was assessed using 6-items or questions which were adapted from the USDA 18-item Household Food Security Survey Module.¹⁵ Translation process to Malay language and face validation was carried-out for this questionnaire before being used in this survey. The questions refer to the experience and frequency of the respondent related to food insecurity within the past twelve months. The first two questions asked about whether the individual food purchased was not sufficient and not varies because they could not afford it. Next two questions targeted to the household when the questions asked whether the family have been reducing the size of meals and did the family skip the main meal because of not enough money to spend on food.

Last two questions pertained to the children in the household. The questions asked whether the family only rely on cheap and affordable foods to feed the children and whether the family could

not afford to feed the children with various foods because of did not have enough money. The answers to the six questions were include 'almost every month', 'several months', 'only one or two months', 'never', 'don't know', and 'refuse to answer'. Those who answer 'almost every month' and 'several months' indicated as food insecure and those who answer 'only one or two months' and 'never' meant as food secure.

Anthropometry measurements were also taken by trained research assistants to identify the nutritional status of the respondent based on Body Mass Index (BMI) and Waist Circumference (WC). In order to determine BMI, body weight measured to the nearest 0.1kg by using SECA 309 weight scale and height measured to the nearest 0.1cm by using SECA 208 stadiometer. Reference from the World Health Organization (WHO) 1998 has applied to classify the respondent into underweight, normal, overweight or obese.¹⁶ Waist circumference was measured using SECA 100 measuring tape with the nearest 0.1cm. Abdominal obesity was determined using reference from International World Health Organization/International Association for the study of Obesity/International Obesity Task Force (WHO/IASO/IOTF, 2000) which has recommended the use of waist circumference (WC) cut-offs > 90cm for men and >80cm for women.¹⁷

Statistical analysis was conducted using Statistical Package for the Social Science (SPSS) version 21. Each individual question would indicate their own food insecurity parameter which is 'ever experienced food quantity insufficiency', 'ever experienced food variety insufficiency', 'had reduced the size of meal', 'had skipped the main meal', 'only rely on cheap and affordable foods to feed children' and 'could not afford to feed the children with various food'. The food insecurity parameter analysed descriptively by using population weights provided by DOS. Logistic regression carried out to identify the socio-demographic and nutritional characteristics most likely to report food insecurity.

RESULTS

A total of 2962 (98.7% of the original respondent) adults had completed the food insecurity questionnaire. The distribution of the respondents was successful proportionate to the main sociodemographic characteristics such as location, strata, gender and race. According to table 1, only 43.1% respondent is normal for their BMI, whereas 32.9% is overweight, 18.5% is obese, and 5.5% is underweight. The waist-and-hip ratio shows 22.6% respondent had abdominal obesity.

The prevalence of food insecurity in terms of food quantity insufficiency was 25.0%, and food

insecurity in term of variety insufficiency was 25.5%. About 21.9% adult reduced the size of the meal and 15.2% skipped meal at least one month in a year. For the parents, 23.7% only rely on cheap food and affordable food to feed their children, and 20.8% could not afford to feed their children with various foods (Figure 1).

By sociodemographic, location, strata, race, level of education, working status and household income shows significant different (95% CI does not overlap with another category in the variable) in all six parameters of food insecurity

measured. Meanwhile, none of the nutritional status components found to have a significant difference with all the parameters (Table 2). Logistic regression found the race, education level and household income can be linked to food quantity insufficiency, food variety insufficiency, skipped main meal, only rely on cheap and affordable food to feed children and could not afford to feed children with various food. Strata become an additional factor linked to a reduced size of meal besides race, education level and household income (Table 3).

Table 1. Respondent characteristics

Characteristic		Count	%
Malaysia		2962	100
Location	Peninsular	1838	62.1
	Sabah & Sarawak	1124	37.9
Strata	Urban	1574	53.1
	Rural	1388	46.9
Gender	Men	1368	46.2
	Women	1594	53.8
Race	Malay	1468	49.6
	Chinese	515	17.4
	Indian	132	4.4
Education level	Others	847	28.6
	No formal education	133	4.5
	Primary education	614	20.8
	Secondary education	1442	48.8
Marital status	Tertiary education	745	25.2
	Others	18	0.6
	Never married	729	24.6
	Married	2045	69.1
Working status	Separated/ divorced	127	4.3
	Widowed	58	2.0
	Gov. employee	372	12.7
	Private employee	1063	36.3
Household income	Self-employed	825	28.1
	Not working	611	20.8
	Still studying	61	2.1
	< RM 2300.00	1806	61.6
Body Mass Index	RM 2300.00 - < RM 6000.00	799	27.2
	≥ RM 6000.00	329	11.2
	Underweight	156	5.5
Waist-Hip Ratio	Normal	1227	43.1
	Overweight	938	32.9
Waist-Hip Ratio	Obese	528	18.5
	Normal	2219	77.4
Waist-Hip Ratio	Abdominal obesity	648	22.6

Table 2: Six food insecurity parameters with difference by socio-demographic characteristic.

Characteristic		Food Insecurity Parameter % (95% CI)					
		Food quantity insufficiency	Food variety insufficiency	Reduced size of meal	Skipped main meal	Only rely on cheap and affordable food to feed children	Could not afford to feed children with various food
Malaysia		25.0 (22.6, 27.5)	25.5 (23.0, 28.2)	21.9 (19.6, 24.2)	15.2 (13.2, 17.3)	23.7 (21.2, 26.3)	20.8 (18.5, 23.3)
Location	Peninsular	21.1 (18.4, 24.1)*	21.4 (18.7, 24.5)*	19.2 (16.7, 22.0)*	13.0 (10.9, 15.5)*	19.4 (16.7, 22.5)*	16.5 (14.0, 19.4)*
	Sabah & Sarawak	39.2 (34.5, 44.2)	40.8 (35.8, 46.0)	31.8 (27.3, 36.7)	23.3 (19.2, 27.9)	39.6 (34.4, 45.0)	36.7 (31.6, 42.2)
Strata	Urban	21.2 (18.2, 24.5)*	22.0 (18.8, 25.4)*	18.9 (16.2, 22.0)*	12.6 (10.3, 15.3)*	20.1 (17.0, 23.6)*	16.6 (13.8, 19.8)*
	Rural	33.5 (29.9, 37.3)	33.6 (30.0, 37.4)	28.5 (25.1, 32.1)	21.0 (17.7, 24.8)	31.3 (27.6, 35.3)	29.8 (26.0, 33.9)
Gender	Men	26.4 (23.2, 30.0)	27.0 (23.7, 30.6)	23.8 (20.7, 27.1)	16.7 (13.9, 19.9)	24.3 (21.1, 27.9)	21.2 (18.1, 24.8)
	Women	23.3 (20.6, 26.3)	23.9 (20.9, 27.1)	19.8 (17.3, 22.5)	13.5 (11.5, 15.9)	23.0 (20.0, 26.3)	20.3 (17.6, 23.3)
Race	Malay	22.5 (19.3, 26.0)	22.8 (19.9, 26.1)	19.0 (16.4, 21.9)	13.6 (11.3, 16.4)	20.9 (17.8, 24.4)	19.5 (16.3, 23.1)
	Chinese	14.8 (10.8, 20.0)	15.0 (10.5, 21.0)	15.7 (11.0, 21.9)	7.6 (4.8, 11.7)	15.7 (11.0, 21.9)	11.1 (7.3, 16.5)
	Indian	26.0 (17.6, 36.6)	30.2 (22.2, 39.6)	24.7 (16.9, 34.5)	17.0 (10.6, 26.3)	22.8 (14.8, 33.4)	14.5 (8.8, 23.0)
Education level	Others	41.6 (36.4, 47.1)*	41.8 (36.5, 47.3)*	34.9 (29.7, 40.6)*	26.5 (21.5, 32.2)*	40.0 (34.6, 45.7)*	36.6 (31.2, 42.4)*
	No formal education	67.3 (55.7, 77.0)*	66.7 (55.0, 76.6)*	58.2 (46.0, 69.5)*	50.0 (38.5, 61.4)*	67.0 (52.7, 77.3)*	64.3 (51.8, 75.1)*
	Primary education	45.2 (40.0, 50.5)	46.6 (41.1, 52.1)	40.3 (35.1, 45.8)	29.9 (24.9, 35.4)	41.1 (36.0, 46.3)	36.5 (31.5, 41.9)
	Secondary education	23.7 (20.6, 27.0)	23.9 (20.8, 27.2)	19.8 (17.2, 22.7)	12.5 (10.3, 15.2)	22.0 (18.9, 25.4)	19.1 (16.4, 22.1)
Marital status	Tertiary education	10.2 (7.6, 13.5)	11.0 (8.1, 14.8)	10.2 (7.6, 13.4)	7.1 (4.9, 10.3)	10.0 (7.3, 13.6)	8.1 (5.5, 11.9)
	Others	27.7 (12.1, 51.4)	26.4 (11.0, 50.8)	16.8 (6.2, 38.0)	8.9 (2.6, 26.5)	16.3 (4.7, 43.3)	23.6 (7.9, 52.7)
	Never married	24.0 (19.5, 29.2)	23.9 (20.0, 28.3)	20.7 (17.0, 24.9)	16.5 (12.0, 16.6)	25.2 (20.2, 31.0)	21.5 (16.7, 27.3)
	Married	24.7 (22.2, 27.5)	25.3 (22.6, 28.3)	21.8 (19.3, 24.5)	14.2 (12.0, 16.6)	22.3 (19.8, 25.0)	19.6 (17.3, 22.2)
Working status	Separated/ divorced	31.2 (21.7, 42.5)	35.9 (25.6, 47.8)	29.6 (20.3, 41.0)	19.1 (12.0, 29.1)	32.5 (22.5, 44.4)	27.8 (18.5, 39.5)
	Widowed	41.8 (24.4, 61.4)	43.8 (26.1, 63.2)	31.5 (15.1, 54.4)	27.8 (12.2, 51.6)	46.8 (28.8, 65.8)	50.7 (32.5, 68.6)
	Gov. employee	9.8 (7.3, 13.1)*	9.7 (6.7, 13.7)*	9.1 (6.4, 12.7)*	6.3 (3.7, 10.4)*	7.8 (5.2, 11.5)*	7.4 (4.8, 11.0)*
Household income	Private employee	24.3 (20.9, 28.1)	25.2 (21.7, 28.9)	21.9 (18.7, 25.5)	14.5 (11.8, 17.7)	23.6 (19.9, 27.8)	19.3 (16.1, 23.0)
	Self employed	27.3 (23.3, 31.7)	26.4 (22.2, 31.0)	22.3 (18.9, 26.2)	16.1 (13.2, 19.5)	24.8 (21.1, 29.0)	22.9 (19.4, 26.9)
	Not working	34.9 (29.8, 40.4)	36.5 (31.4, 41.9)	28.8 (24.2, 33.9)	20.6 (16.4, 25.6)	32.5 (27.5, 37.9)	29.2 (24.2, 34.7)
Body Mass Index	Still studying	14.1 (6.4, 28.5)	15.3 (7.4, 29.1)	19.1 (9.6, 34.6)	16.8 (8.0, 31.9)	18.4 (8.1, 36.9)	16.9 (7.0, 35.7)
	< RM2300	35.7 (32.2, 39.4)	35.2 (31.8, 38.8)	29.3 (26.2, 32.7)	21.4 (18.5, 24.5)	33.8 (30.3, 37.4)	30.8 (27.5, 34.4)
	RM2300 - RM5999	15.1 (12.4, 18.4)*	17.1 (13.8, 20.9)*	15.6 (12.6, 19.1)*	9.1 (6.7, 12.2)*	14.0 (10.8, 17.9)*	10.8 (8.1, 14.3)*
Waist-Hip Ratio	≥ RM 6000	3.3 (1.3, 7.8)*	4.1 (1.7, 9.1)*	4.5 (2.3, 8.8)*	3.4 (1.5, 7.1)*	4.9 (2.6, 9.0)*	3.0 (1.3, 7.0)*
	Underweight	27.9 (18.8, 39.4)	26.6 (18.4, 36.8)	24.3 (16.1, 34.9)	19.4 (11.4, 31.0)	27.7 (17.8, 40.5)	25.0 (16.1, 36.6)
	Normal	23.1 (20.1, 26.4)	24.8 (21.4, 28.5)	20.6 (17.7, 23.8)	14.2 (11.8, 17.1)	22.6 (19.4, 26.3)	19.2 (16.2, 22.7)
Abdominal obesity	Overweight	26.5 (22.7, 30.6)	26.9 (23.1, 31.2)	23.3 (19.6, 27.5)	17.3 (14.0, 21.3)	24.6 (20.6, 29.0)	20.8 (17.3, 24.9)
	Obese	26.6 (22.0, 31.8)	25.4 (20.7, 30.7)	22.2 (17.9, 27.2)	13.5 (10.4, 17.4)	23.4 (18.6, 29.0)	22.7 (18.2, 27.9)
Abdominal obesity	Normal	24.5 (21.8, 27.4)	25.2 (22.5, 28.2)	21.7 (19.1, 24.5)	15.0 (12.8, 17.5)	23.4 (20.7, 26.4)	20.2 (17.6, 23.2)
	Abdominal obesity	27.5 (23.2, 32.3)	27.3 (23.0, 32.0)	23.2 (19.1, 27.9)	16.4 (13.1, 20.4)	24.6 (20.2, 29.5)	22.5 (18.4, 27.2)

*significant different based on 95% CI

Table 3: Adjusted odds ratios (aOR) for food insecurity parameters

Characteristic	Food Insecurity Parameter, aOR (95% CI)						
	Food quantity insufficiency	Food variety insufficiency	Reduced size of meal	Skipped main meal	Only rely on cheap and affordable food to feed children	Could not afford to feed children with various food	
Strata	Urban	-	-	1	-	-	-
	Rural	-	-	1.22 (1.03, 1.49)*	-	-	-
Race	Malay	1.85 (1.38, 2.50)*	2.04 (1.52, 2.75)*	1.38 (1.02, 1.87)*	2.45 (1.66, 3.63)*	1.58 (1.15, 2.17)*	2.01 (1.41, 2.86)*
	Chinese	1	1	1	1	1	1
	Indian	2.07 (1.26, 3.40)*	2.91 (1.80, 4.72)*	1.65 (1.00, 2.76)*	2.37 (1.25, 4.41)*	1.75 (1.01, 3.01)*	1.74 (0.94, 3.15)
Education level	Others	3.51 (2.59, 4.76)*	3.76 (2.76, 5.11)*	2.26 (1.65, 3.08)*	3.48 (2.34, 5.18)*	3.34 (2.40, 4.65)*	3.87 (2.70, 5.56)*
	No formal education	5.79 (3.63, 9.25)*	5.81 (3.65, 9.26)*	4.74 (2.98, 7.54)*	5.99 (3.63, 9.88)*	5.47 (3.28, 9.12)*	6.43 (3.78, 10.96)*
	Primary education	4.56 (3.32, 6.72)*	4.67 (3.41, 6.41)*	3.89 (2.80, 5.42)*	4.04 (2.76, 5.94)*	3.76 (2.65, 5.34)*	4.55 (3.08, 6.71)*
	Secondary education	2.00 (1.50, 2.69)*	1.93 (1.44, 2.57)*	1.72 (1.27, 2.33)*	1.56 (1.09, 2.26)*	1.77 (1.28, 2.44)*	2.11 (1.46, 3.04)*
	Tertiary education	1	1	1	1	1	1
Household income	Other	3.13 (1.08, 9.02)*	2.89 (1.03, 8.14)*	2.02 (0.67, 6.09)	1.74 (0.47, 6.48)	1.37 (0.34, 5.58)	3.17 (0.83, 12.09)
	< RM2300	12.58(6.10, 25.95)*	10.97(5.52, 21.80)*	6.65(3.54,12.52)*	6.87 (3.14, 15.01)*	6.51 (3.67, 11.54)*	10.81 (4.96, 23.55)*
	RM2300 - RM5999	5.09 (2.43, 10.64)*	4.80 (2.38, 9.66)*	3.15 (1.65, 6.01)*	2.77 (1.24, 6.20)*	2.21 (1.22, 4.02)*	3.06 (1.37, 6.85)*
	RM6000.00	1	1	1	1	1	1

*significant for multiple logistic regression

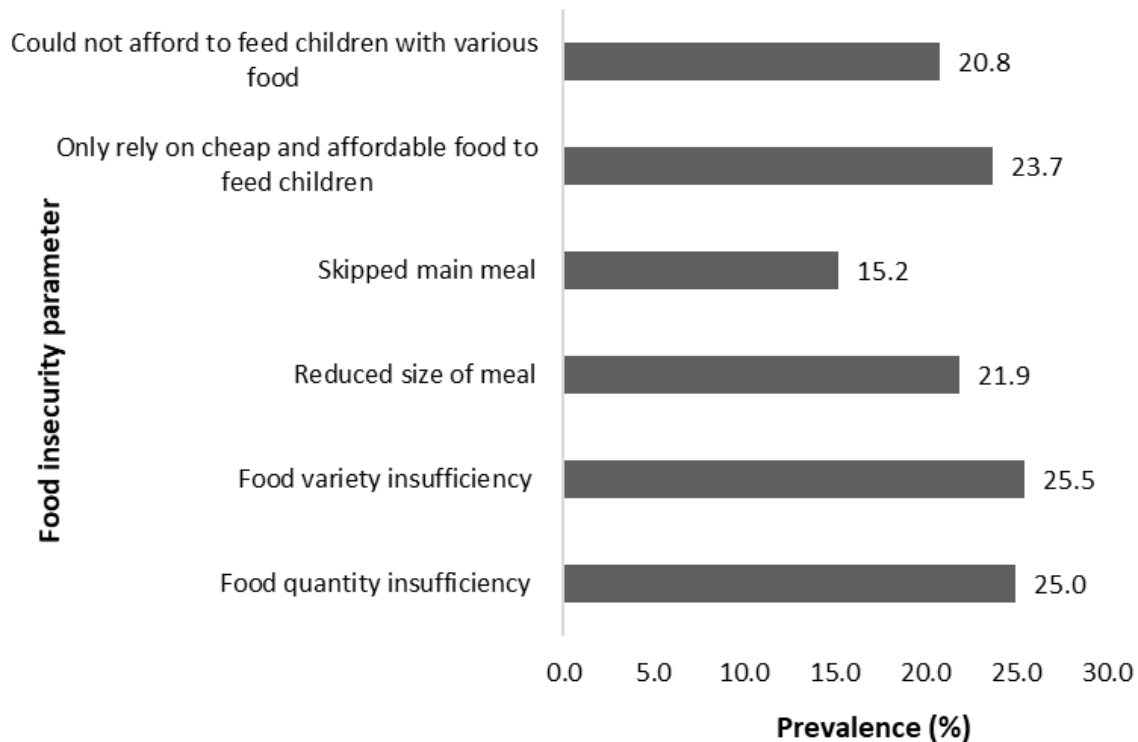


Figure 1: Prevalence based on six parameters of food insecurity among Malaysian adults

DISCUSSIONS

This paper presented the results of six food insecurity parameters based on six direct questions adopted from the USDA 18-item Household Food Security Survey Module. High response rate obtained and the proportionate distribution with the essential sociodemographic characteristics ensure that the data was enough to represent the Malaysia population. The percentage of respondents who are overweight and obese was 32.9% and 18.5% respectively. Publication from the same survey with complex sampling analysis to infer the Malaysian population found 32.4% (95% CI: 30.29-34.59) and 18.5% (95% CI: 16.6-20.5) Malaysian population is overweight and obese respectively. It increased since MANS 2003 when the prevalence was 26.71% (95% CI: 25.5-27.96) and 12.15% (95% CI: 11.26-13.1), respectively at that time.¹⁸

Due to resource constraint, about 25% or one in four of the Malaysian households had experienced food variety insufficiency and quantity insufficiency. As a comparison, a national survey among 4185 South African adults found 38% of their households often and sometimes experienced insufficiency of food to be consumed in the last twelve months.¹⁹ Canada Community Health Survey (CCHS) reported about 14.7% of their households did not eat quality or enough quantity of food in the previous twelve

months because lack of money.²⁰ Another cross-sectional population-based study among 2051 adults in Botswana and Swaziland reported the prevalence of food insufficiency in the last twelve months was 22% and 32% among men and women respectively. The prevalence in the current study is quite similar with other studies, and the little differences may be due to several factors such as political instability, war and civil strife, macroeconomic imbalance, trade dislocation, poverty, population growth, gender inequality, inadequate education and poor health.²¹

About 20% or one in five of Malaysian households could not afford to feed children with various foods, only rely on cheap and affordable food and reduced size of the meal. Meanwhile, as much as 15.2% households skipped meal due to not having enough money to spend. Therefore, they were exposed to the risk of malnutrition, especially among children. Malnutrition is always immediately related to either the insufficient nutrient intake or the inability of the body to absorb nutrients, and one of the underlying factors was food insecurity.²²

The implications of severe food insecurity adversely observed among children. It can lead to poorer health outcomes, delays in recovery from illness as well as more extended periods in hospital, and is associated with slower

development and lower educational performance amongst children.²³ A prospective longitudinal study among 278 families in the United Kingdom found children reared in households experiencing food insecurity had significantly lower IQs and higher levels of behavioural and emotional problems at the age of 12 years than their food-secure counterparts.²⁴

From our result, location, strata, race, level of education, working status and household income shows significant difference whilst none of the nutritional status which is Body Mass Index and Waist Hip Ratio found to be the difference in all six parameters of food insecurity measured. Many studies reported the differences in demographics such as sex, age, source of income, household type, homeownership, marital status, immigrant status, and aboriginal status might be related to food insecurity^{6,25}. As poverty always linked to food insecurity, increase in the individual or household income believed to be a measure in combating food insecurity as well as poverty²⁶.

Generally, logistic regression analysis shows only race, education level and household income linked to all six parameters of food insecurity. Among the factors, increase household income believed to be one of the promising strategies to avoid food insecurity. A one-year longitudinal study conducted among 331 families in Toronto, suggested that improvements in income and employment are related to developments in family's experiences of food security. The study also highlighted the potential for income- and employment-based policy intervention to combat food insecurity among low-income family.²⁷ Education is another changeable factor that can help in reducing food insecurity. Evaluation study for Supplemental Nutrition Assistance Program (SNAP) in the United States found both food assistance and education on nutrition and resource management are needed to reduce food insecurity.²⁸

CONCLUSIONS

In conclusion, this study figures out food insecurity issues based on the six parameters measured which are food quantity insufficiency, food variety insufficiency, reduced the size of the meal, skipped a main meal, only rely on cheap and affordable food to feed children and could not afford to feed children with various food. Most of the demographic factors show significant differences in terms of prevalence with all parameters of food insecurity measured. However, only race, education level and household income found as the predictors. Considering the enormous implications of food insecurity towards health, the finding of this study warrants the need for continuous research to explore and understand the situation in Malaysia. At the same time, immediate action or

program needed to reduce the prevalence of food insecurity before it becomes worsens due to the increasing cost of living and global economic instability.

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