

Fruits and Vegetables Consumption Factor Based on Different Culture in Selangor State

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Abstract

This study explored about the differences of culture were able to affect the fruits and vegetables. Qualitative methods such as focus groups were applied in this study. 27 respondents enrolled in 3 different ethnics focus group discussion in Selangor state. Selangor was chosen as sampling frame for this research because it comprises the balanced ethnics in Malaysia compared to other state. Purposive sampling was used as a sampling technique. Respondents were chosen from three ethnics' background which include Malay, Chinese and Indian with aged between 19 – 59 years old. Respondent were also selected based on their fruits and vegetables preference. Results indicated that Malay consumed fruits and vegetables based on environment. However, Chinese and Indians have trusted their own belief practiced by their early ancestors. In conclusions, this result will helps Malaysian marketers to understand the culture before starts to target market based on different culture in Selangor.

Keywords : Fruits, Vegetables, Consumption, Culture, Adults

1. Introduction

1.1 Fruits and Vegetables

Fruits and vegetables is considered to be a healthful food (Brug, Vet, Nooijer, & Verplanken, 2006). Recently, there were many research conducted about fruits and vegetables among adults as fruits and vegetables contains source of water soluble vitamins, antioxidant nutrients, as well as dietary fiber. In addition, they also generally consumed as they associates with health and diseases (Joshipura KJ, Hu FB, & Manson JE, 2001; Maynard M, Gunnell D, Frankel S, & G., 2003). Fruits and vegetables were also knows to associates with reduced risk of chronic diseases (such as cardiovascular diseases, diabetes, stroke, obesity, diverticulosis and cataract (Bogers, Assema, Kester, Westerterp, & Dagnelie, 2004) and cancers (Hall J.N., Moore, S.B., & Lynch, 2009). Fruits can be consumed in many ways, such as number of cups, number of servings and number of times eaten daily (Yeh, Obenchain, & Viladrich, 2010). Reported by

Healthy People, 2020, they provides nutritional guidelines for public which focusing on how much fruits and vegetables must be consumed by an adults in America. Besides America consumption, it is interesting to investigate the current fruits and vegetables consumption for Malaysian adults since World Health Survey in 2002 – 2003 stated that male and female have low consumption of fruits and vegetables. Few previous research shown that the amount of estimation of fruits and vegetables consumed were 96 gram of vegetables portray that Malaysian consumed less than 5 servings fruits and vegetables (Nurul Izzah et al., 2012).

1.2 Malaysia

Physically, Malaysia is a small nation with estimated population 28,142,000 in the year 2011 (Malaysian Department of statistics, 2011) with comprising three main races – the Malays, the Chinese and the Indians, started to live together before 1957 (Fat Sian, Shyue Chuan, Bik Kai, & Bee Chen, 2010). Each of the ethnics practices different culture in daily life. Malay usually knows as Muslims practitioner, whereas Chinese practice Buddhism and Indians practiced Hindus. Each of ethnics follows their own religion culture. In this study, researcher will focus about the fruits and vegetables found to consume by succeeding the different culture practiced by diversity of ethnics.

There was different meaning about culture by different researcher. Culture is not static but it is dynamic (Fat Sian et al., 2010). Culture is a potent force in any social groups whether it is an ethnics groups, religious group or special interest group. (J. O. Kim, S.Forsythe, Q.Gu, & S.J.Moon, 2002). Few studies show that a group of researcher agrees that culture has reflective impact on individuals' values and lifestyles. Thus, culture can be used to underestimates as it will affect people's thoughts, motives and value systems. In summary, culture is the systems of shared beliefs, values, customs, practices, behavior, symbols and artifacts of a group of members which used to interact and communicate with one another in one environments (Fat Sian et al., 2010). Few research has been conducted about consumers values in different ethnics culture affected the consumer behavior, especially among the Asian (Fat Sian et al., 2010). In addition, many research conducted in the consumer behavior were affected by Western Bias (Mooij, 2003). Research conducted solely focus on western bias and another research from oriental ethnic cultures such as Japanese, Koreans, Singaporean Chinese, Hong Kong, Taiwan and Mainland China (Fat Sian et al., 2010) and it was racially homogeneous. However, in Malaysia have co-existence of different races such as Malays, Chinese, Indians and others minority group which has unique combination of different cultures, religious and practices. In fruits and vegetables cases, all three ethnics had different consumption culture practiced widely from generation to generations. Each culture practiced will shapes the consumption of fruits and vegetables for these three ethnics.

The culture and beliefs were found out in this study, focusing about fruits and vegetables is well suited using qualitative methodologies. It helps researchers to collect highly rich data needed for documentation especially on the consumption of fruits and vegetables. The objective of this study was to investigate about differences of culture practiced by Malay, Chinese and Indians towards fruits and vegetables consumption. The study focused on Malay, Chinese and Indians adults aged 19 – 59 years which reported to consume fruits and vegetables daily.

2. Methods

Qualitative method was applied in this study as it was useable to investigate the culture of fruits and vegetables for Malaysian adults. This methods were effective data collection compared to survey question as it was used to generalize the population (Y. . Kim, Eves, & Scarles, 2009). Therefore, focus group discussion were used in this study to gather ideas, insights, feelings, perception and experiences about particular issues (Churchill, 2001; Krueger, 1994). Focus group were known as small group of people brought together an unstructured, spontaneous discussion about a specific (Burns & Bush, 2003; Churchill, 2001; Krueger, 1994)

2.1 Participants and recruitment

Adults aged 19 – 59 years old were found by using convenience sampling in Selangor area. However, many respondents were choosing from Selangor populated district known as Subang Jaya. This district were found to have balanced population of the three ethnic (Malaysia Department of Statistics, 2011). Convenience sampling were used to recruit "best informants" which represent the willing respondents to share relevant experiences about fruits and vegetables in a group (Morse. J, 1992; Patton, 1990). Respondent were chosen based on eligibility (based on ethnics, age and willingness to talk about food choice during a telephone screening interview. Before that, a flyers filled with qualified criteria of

respondent has distributed via electronic emails, and pamphlet to the Subang Jaya area asking for willing respondent to participate the group discussions.

2.2 Data Collection

The focus group discussion were conducted by an experienced interviewer during March 2011. There were three focus group discussions with difference ethnics for each focus groups discussion. It was conducted in one place in Seminar rooms in hotel in Selangor area. Each of the focus group contains nine respondents with combination of gender, marital status, age, and occupation). In total, there were 27 seven respondents interviewed in three focus group conducted. The focus group discussion started with a warm greetings and followed by full clarification about the research and all the data gathered were used solely for the purpose of the study.

A semi conducted questions were used in the focus group discussion. Each of the focus group discussion were divided into two session which each sessions used 1 hours and 15 minutes. First session focus on fruits and second half session were focusing on vegetables. Semi structured question was used to allowed the interviewer to probe for details more about to talk about different benefits, challenges of eating fruits and vegetables (Glaser & Strauss, 1967). Each participant will sign consent form approved by Committee Supervisor. The Focus group discussion was conducted by three trained interviewers in English and Bahasa Malaysia. All interviews were audiotape recorded. Shortly, verbatim transcripts were completed from the tapes and reviewed for accuracy. However, Bahasa Malaysia were transcribed into English by bilingual transcribers and verified by English experts to remains the meanings. Each participants in focus groups discussions received compensation for participation in form of small amount of money. The participants were given form to fill in about their basic demographic information as a record to interviewers.

Afterwards, data about demographic information were collected before the discussions started. In a meanwhile, field notes collected from interviews, interview transcripts were used in the analysis.

2.3 Data Analysis

The interview transcripts were analysis manually by using content analysis. After the theme were derived from interview transcriptions, field notes and demographic information, peer check were used to discussed about the emergent themes and validate research finding (Lincoln YS & Guba EG, 1985). However, members check were used in this study to facilitate the patterns emerging from interviews to discussed about the emerging patterns.

3. Results

There were 27 participant involved in this focus group discussion (Table 1). Majority of the participants is female which present that diverse age groups. Three major ethnics were included : Malay, Chinese and Indians. Most of the respondent had high education and they presented low to moderate – income groups with varieties of households.

Table 1. Respondent Profile (n =27)

	Total	
	n	%
<i>Gender</i>		
Female	14	51.8
Male	13	48.15
<i>Age (yrs)</i>		
19 - 30	11	40.7
31 – 40	6	22.22
41 – 50	3	11.11
51 - 59	7	25.9
<i>Ethnicity</i>		
Malay	9	33.33
Chinese	9	33.33
Indians	9	33.33
<i>Education</i>		
Secondary School	5	18.5

Diploma	3	11.11
Degree	17	62.96
Post Graduate	2	7.4
Marital Status		
Single	11	40.74
Married	12	44.44
Divorced	4	14.81

Table 1 shown the respondent profile of focus group discussions. Although all the participants shared all their thought about fruits and vegetables, this article focuses on the different culture practices during consuming fruits and vegetables. There were 3 major themes identified in this study. There were food environments, habits, parental control, and ethnics' beliefs and traditions. The differences of culture can be found in the last themes which it was associated with ethnics' tradition and beliefs. However another three earlier themes was found to have similarities to each of Malay, Chinese and Indians.

3.1 Themes

3.1.1 Food environment

The experience during childhood were a factor which shaping the current fruits and vegetables consumptions. Childhood experiences such as the availability of various fruit and vegetables in their growing environment, experiences preparing fruits and vegetables and pleasure memories of the taste of fruits and vegetables. There were two examples about food environments:

"I like mango. My grandma house have mango tree.. When I go back, she will pick for me"
R6, Chinese, Female

" Since childhood, my parents used to taught me about fruits and vegetables. They always in my surrounding. I enjoyed seasonal fruits. However, for vegetables, it was easily found at my house backyard. That's why I used to eat them"
R2, Malay, Female

It was found that Malay consumed 'ulam' which is fresh vegetables. Additionally, 'ulam' is knows as Malay herbs. Malay like to consume 'ulam' such as *Cosmos caudatus (Ulam raja)*, pucuk gajus or Indian Pennywort (*Pegaga*) but none for Chinese and Indians respondents.

"For Indians.. we would not take 'ulam"
R3, Indians Male

"Ulam? We only take fresh salad such as cabbage or slice cucumber"
R5, Chinese, Female

3.1.2 Ethnics beliefs and traditions

Ethnics identity was based on each ethnics groups. There were similarity and dissimilarities among Malay, Chinese and Indians participants. One of the dissimilarities is from Chinese beliefs. Chinese respondents describes her Chinese belief shapes her fruits and vegetables consumption over her life by using Chinese Yin and Yang :

"When I came across a choosing the fruits, this one thing that I are concerned the most. It is (This is) according to the Chinese tradition. You know, I mean like (follow) the physician (roles). The first (to be concern) is three (elements). I don't know specific terms for it. It's (It is) like heat, and then neutral and then very cooling one. I try to avoid the heat one, (such as) Durians and mangoes. Because they are well in fiber, and because I (was) easily get heat and then I will have sore throat, (and) all those thing (other fever symptom). So, normally I will choose the neutral one (fruits) like (such as) papaya, banana, those kind of fruits. And cooling one maybe like peas. I think apples is neutral. Yeah, mostly neutral (Fruits). That was I concern the most.."

"As I mention about heaty, cooling and the.. neutral, one more thing, is there are some fruits that (follow) our Chinese perceptions..They are some fruits which is very cold, I mean it's not suitable for ladies to take...Orange.. it has cold

elements according to the Chinese physician”

Another Chinese woman who follows the religion based on culture stated that :

“Some nutritional value in vegetables, in term of Chinese traditional medicine value, for example, vegetable are also have like each category like fruits.. Cold, heaty and natural... For examples, if let's say.. feeling (having) a cold, it will good to have (something,then) when you cook vegetables, you put ginger in it? Because ginger can help in terms of stimulate that . So, another thing, you can (try).. if lets say you are suspecting yourself is having worms.. You can take a lot of garlic”

Instead of female Chinese, the male also stated that they practice to follows their Chinese culture when they feel sick in his life:

“I know a few .. but the most is like (such as) bitter gourd. They actually have cooling (elements). They have the cooling (elements). Let's say your body is (feeling) heat, heaty or what...(and will) like start to do (have) get fever, body heating, (then) get the bitter gourd, and then, and you would like cooling (the temperature) it down. You are cooling it (temperature) down. Actually, quite works .Yeah.. Because every time I started to like e (having), body heating, I felt like I gonna (going to) get fever very soon, they are sore throat, and you get the bitter gourd, is really working. It works all the time”

Chinese participants stated that they consumed vegetables such as bamboo shoot during Chinese New Year festival They were Chinese leek, lotus root and water chest nut. For Chinese New Year dinner, all the Chinese respondents stated that they consume “Yee Sang”, a Chinese traditional salad.

*“ The most is like er.. bitter gourd. They actually have cooling (elements). Let's say your body is heat (high temperature), heaty or what.. like start to do get fever, (and) body starts heating, er.. get (consume) the bitter gourd, and then, and you would like cooling it down (temperature). Actually, Yeah, quite works .Yeah.. Because every time I (when) I started to like (have) body heating, I felt like I gonna (going to) get fever very soon, they are sore throat, and you get the bitter gourd, is really working. It works all the tim. We cooked bitter gourd soup.
R9, Chinese, Male*

*“Yeah.. sometimes I think the intake of vegetables are filtrated with our..maybe our beliefs, our practice, like for Chinese, some of Chinese because of the religion, the first day and the 15th days of the month, some of them practiced vegetarian. Yeah, according to the lunar calendar. And for the.. because I'm a Hakka, which one of the dialect, we traditionally we eat “letcha”... it's like all vegetables... Since young.. our grandmother said, if you don't eat this, you are not consider as one of us. One of the family. So, we are forced to eat it.
R4, Chinese, Female*

From the analysis, Malay, Chinese and Indian have the specific time to consume fruits and vegetables. They consumed fruits and vegetables daily. Besides that, they have different occasion to consumed fruits and vegetables. Chinese and Indian respondents usually prepared fruits for praying ceremony. In addition, one Indian respondent shared that they practiced vegetarianism to express sorrow when someone in the family is dead.

*“My father in law died. So in 16 days, we only consumed vegetables. For examples, one day for one vegetables. Cut it into small pieces and cooked it. Sometime we put into curry. Vegetables such as lady's finger, French beans, potato, tomato and unripe banana”
R 5, Indian, Male*

4. Discussions

Participants in this study had explained about culture can affects their fruits and vegetables consumptions, as mentions in the themes described above. For examples, Chinese describing that they follows their food culture, especially Chinese beliefs known as Ying and Yang elements, and Indians with their vegetarianism practiced. However, there is no records for Malays who follows Muslims rules for vegetables except for 'Halal' issues. Malays were known as Muslims and practice Islam. The concept of 'Halal' which means 'lawful or permitted' can be found in Islam. Muslims applied 'Halal' in their lives and it includes regulations surrounding food (betterhealth.vic.gov.au, 2011). In fruits and vegetables term, they were free to consumed any fruits and vegetables. However, in the results stated that Malay food environment was found that Malay practices to consume ulam.

Chinese participant admitted that they consumed fruits and vegetables based on their culture. It was found that culture influenced fruits and vegetables consumptions since one of the philosopher of Chinese garden of serenity known as Hung Tzu - Ch'eng stated that 'only those who can appreciate the least palatable of vegetables roots know the meaning of life' (Anderson, 2005). In addition, Chinese participants shared that they follows their beliefs in food culture (Hauf, 2011). The Taoist teaching which associated with Ying and Yang cosmology has transcended to become one way of thinking to become a general Chinese cultural resources. Yin which means cold, and yang means hot. From the results it was found that Chinese participant shares the yin and yang rules during consumed fruits and vegetables. It was proven when yin and yang applied to cold and hot aspects of food, food as medicine, balanced and harmony of flavours (Hauf, 2011). Besides, Taoist traditions beliefs that food should be combined with medical or healing functional. In this beliefs, they beliefs that food have two elements (hot and cold). For examples hot foods includes chilli and ginger should be avoided by pregnant woman or people with high blood pressure diseases. However, the 'cool' vegetables such as eggplant should be eaten by people who wish to lower their blood pressure (betterhealth.vic.gov.au)

Indian cooking varies throughout the country and according to ethnic and religious preference (Hauf, 2011). Indians knowns to practices Hindus. Therefore, they were not allowed to consume beef as cow is sacred. As a results, they practices vegetarians (Hauf, 2011), likewise the Indians people from south of India. This was in line with the results that Indians were found to consume vegetables frequently and it was effected by their vegetarianism eating culture (Kutler, 2004). They practice vegetarians by consuming for fruits and vegetables such as potato, tomato, french beans, sweet potato, tapioca, cashew nut, capsicum, maize and papaya (Nandy. A, 2004).

This study focus on ethnicity. Therefore, the profile of the respondents such as age, gender, marital status were not discussed as the main factor. As culture were derives from ethnics, other factors need to be neglected. Food is an importance part of religious observance of different faiths, including Christianity, Judaism, Islam, Hinduism, and Buddhism. Thus, the roles of food practices and religious is complex and various among individuals and communities (betterhealth.vic.gov.au)

5. Conclusions

Formally, fruits and vegetables were considered as one of the health food (Tak, Te Velde, & Brug, 2009). However, when people eat it depends on the culture, the benefits of the fruits and vegetables were second to be concerned. Traditionally, other researcher focuses on the growing environment, habits, and health which has been a reason to consume fruits and vegetables. However, this paper focus more on the beliefs and traditions of different ethnics. Hence, this paper might guide other researchers to understand how culture affects the consumption of this three major ethnics in Malaysia.

The findings from this study are definitely useful to Malaysian government as they are known as multiracial country. This multicultural society has contributed the richness of Malaysian consumption, especially for fruits and vegetables. We need to understand the impact of the culture context within Malay, Chinese and Indians since this ethnics live on their ability to consumed fruits and vegetables. Fruits and vegetables is health foods, thus the intake is always associated with health benefits in life. There were many scientific research has been done throughout the benefits of fruits and vegetables. Perhaps this scientific research can be done to prove that the culture or each ethnics has similar results and describing specifically about why the fruits and vegetables is labeled as hot and cold elements. Besides, future studies could test the themes retrieved from current research by using the quantitative methods to generate the culture effects towards fruits and vegetables. However, there was limitation in this study. The findings from this research only used as primary research and could not generalized the whole Selangor state, as it used only 27 participants in focus group discussions.

Finally, this study is expected to be enrich the body of knowledge in the culture of fruits and vegetables since there were few study conducted in Malaysia, focuses in the culture. Therefore, this study was carried out to fill the gap in the fruits and vegetables literature, using Malaysian culture.

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