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Research paper

Media use and Obesity in Sabah, Malaysia

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Abstract

This study explores the effects of media consumption, which are thought to be mostly sedentary in nature, towards the problem of obesity among youths in Sabah, Malaysia. This study surveyed 549 respondents from 12-19 years old categories from various secondary schools in Sabah, Malaysia. Some interesting findings of this study include the high preference among youths in Sabah to choose foods offered by franchised restaurants. It was also found that youths in Sabah are not active physically because most of their time was spent engaging with various forms of information and communication technology (ICT), particularly hand phone and computer. Excessive usage of media appears to replace the time for physical activities, which deprive them the chance to burn the calories absorbed from franchised restaurants' foods. Such situation was made worst when youths tend to consume unhealthy foods, such as snacks and crisps, when engaging with media. This indirect effect of media was also indicated in this study.

Keywords: *Media use; obesity; physical exercise; youth; Malaysia*

1. Introduction

According to the World Health Organisation (WHO) (2017), the number of overweight or obese people in 2016 has reached to more than 1.9 billion, about 25 percent of world population. Out of this figure, 340 million are children and adolescents aged 5-19 year old. Overall, about one in four of the world's population was obese. The sharp increase of overweight and obesity rates especially among youths and teenagers pose concerns to policy makers and communities alike. This phenomenon is also known as "globesity". The utmost concern is related to health risks among overweight and obese people, particulary among youths, who will be future leaders of a county. Various research projects have been conducted to identify the factors that contribute to this problem from different fields. Media have been identified as one of the important factors that contribute to the problem of obesity. However, a study on the role of media use in displacing the time supposedly to be spent in rigourous physical activities, resulting to the problem of overweight and obese, has been given less attention in Malaysia, particularly in Sabah.

Similar to other nations experiencing rapid industrialization, urbanization and a nutrition transition, there is concern in Malaysia of a possible escalation in the prevalence of overweight and obesity. In 1996, the National Health and Morbidity Survey reported a 16.6 per cent and 4.4 per cent prevalence of overweight and obesity, respectively among adults aged above 18 years old. Similar patterns are observed among children and adolescents. The rates of overweight cases among youths has been increasing steadily from 5.4 per cent in 2006 to 7.8 per cent in 2015 (Zalma, 2016). In Malaysia, there is no known national survey carried out with the specific purpose of determining the prevalence of overweight and obesity amongst children and adolescents. However, some specific studies on children (Bong and Safura, 1996; Ismail and Zulkifli, 1996; Kasmini, et al., 1997; Khor and Tee, 1997; Ismail and Vickneswary, 1999; Fatimah et al., 2001; Ismail et al., 2003; Poh et al., 2004; Khambalia and Seen, 2010 and Balkish Mahadir Naidu et al., 2013) have reported that the prevalence of overweight and obesity in the country is alarming.

The tendency of people in Malaysia to eat already-prepared food is on the rise and the food taken are lacking of nutritious values (Euromonitor, 2010). This is particularly true in the case of food eating patterns among youths and children (Totu et al., 2013). Some foods are dangerous because of high in calories and saturated fats, lack of fibres and antioxidants, which contribute to numerous health risks. The unhealthy patterns of food choice was exacerbated by their sedantary lifestyles. Previous studies showed that Malaysian youths and children were highly inactive (Bong, 2003; Dan et al., 2007; Poh et al., 2010). They indicated that sedentary lifestyles, which also known as `couch potato' is one of the contributors to the problems of overweight and obesity among children in Malaysia.

2. Problem Statements

Why children and adolescents are getting physically inactive?

Electronic media technologies have been indicated by many researchers as the main factors contributing to sedentary activity among children and adolescents. TV may promote obesity both by displacing participation in physical activity that would expand more energy, and by increasing dietary energy intake as a result of food advertisements (Dietz & Gortmaker, 1985; Dietz & Strasburger, 1991; Lowry et al., 2002). Larwin & Larwin (2008) and Pey et al. (2014) also found that by reducing time on Internet and mobile phone and replacing it with physical exercises managed to reduce participants' body weight. Although, the research conducted by Nurul Diana et al. (2009) showed either insignificant or weak correlations between Body Mass Index (BMI) and duration of media use and sedentary lifestyle among children in Selangor, Malaysia, most previous studies proved otherwise. Swamenthan (2015) asserts that as mentally stimulating as they are, technological devices do not promote physical stimulation as much as physical activity. Children not only need to reduce the intake of unhealthy foods, they too need to move about as it helps them build strong muscles and learn what their bodies can do. When a sedentary lifestyle becomes a habit, children will face increased risk of obesity. How far mass media and media technologies contribute towards the problem of waistlines among youths in Sabah, Malaysia, is pretty much the focus of this study. The Displacement theory was adopted to explain the relationships between media engagements and physical activity among youths and children.

Although data collected from all the studies pertaining to the prevalence of overweight and obesity among children and youths in Malaysia are interesting and having their own merits, the results of their studies cannot be taken as a true picture of the issue in Malaysia in general. However, the results of the studies above appear to suggest that the prevalence of overweight and obesity in Malaysia is increasing year by year and such situation is worrying because it affects people's life, particularly among the youths. Therefore, apart from looking at the role of media towards obesity problem, this study is also initiated to fill the gap of research within the field of media and society in Sabah, Malaysia.

3. Research Questions

This study was initiated based on two main questions, which later became the research questions. The first research question is whether the increase in youth's body weight has any direct relation to the excessive use of various media channels? And the second question is whether high involvement in media has replace the time supposedly for physical exercises, hence contributes to obesity problem among youths in Sabah, Malaysia.

4. Purpose of Study

The purpose of this study is to investigate the relationship between the use of media and obesity problem among youths in Sabah, Malaysia. It also aimed at examining the role of media in displacing the time supposedly use for physical exercises.

5. Research Method

This research is a descriptive cross-sectional study, which employed a quantitative approach. The survey is the main method used to collect data. The population (*n*) of this study is young people in Sabah aged between 12 to 19 years old. The samples were divided into 2 sub-categories namely: younger youth (16 year olds and below); and older youth (16 year olds and above). All the samples were taken from selected primary and secondary schools around Sabah. The purposive sampling method was employed in this study to select 300 youths from the urban areas and another 300 youths from the rural areas. There were 600 respondents selected as samples for the quantitative data. However, only 549 forms were returned and fit to be analysed. The data analyses were done using Statistical Package for Social Scientists (SPSS).

6. Findings

Consistent with the outcomes of previous studies in the Peninsular Malaysia, youths in Sabah are also found to be less active in physical activity as shown in Table 1. Youths in Sabah are only quite active in doing some light activities such as walking slow within the school or house compound, seating while using computer/hand phone or watching TV, standing, fishing (seated) and playing music instruments. These activities are considered as slow burning calories.

Table 1: Mean of Time Doing Activity

Type of Activity	Minimum	Maximum	Mean	Std. Deviation
Light Activity	1.00	5.00	3.4488	.63230
Moderate Activity	1.00	5.00	2.9696	.78238
Heavy Activity	1.00	5.00	2.9180	.90392
Valid N (list wise)				

This study found significant correlations between increase in body weight with exposure to media, and physical activity as indicated in Table 2. The positive relationships shown in Table 2 indicate that the longer a person involves in various media activity, particularly television and hand phone, the higher the tendency for that person to be overweight.

Table 2: Factors affecting Body Weight

Dependent Variable	IV	Beta (β)
Body weight		
	Hours attached TV	.124**
	Hours attached COM	-.030
	Hours attached Radio	-.030
	Hours attached HP	.129**
	Hours attached Newspaper	-.001
	Hours attached Video Game	.043

Note: Significant levels: $^{**}p < 0.01$, $^{*}p < 0.05$

It was also found that involvement in some media, particularly TV, does replace time for youths to engage in physical activities as shown in Table 3. In other words, TV watching displaces physical activities. This study appears to show that watching television and involvement with hand phone have taken much of youth's time so much so they could not do a healthy physical activity. The negative relationships between TV viewing and heavy and moderate physical activities mean that the more time a person spent on watching TV, the lesser time he/she spends involving in rigorous and moderate physical activities. This result may also explains the relationship between TV viewing and the problem of obesity among youths in Sabah, Malaysia.

Table 3: The effect of TV viewing on physical activity

Dependent Variable	IV	Beta (β)
Type of Physical Activity	Media;	
Heavy Activity	TV	-.127**
Moderate Activity	TV	-.134**
Light Activity	TV	-.089*

Apart from using plenty of their time on media that indirectly causes an increase in body weight, the problem has been compounded by what they do while engaging with media. This study found that most of respondents have the tendency to consume unhealthy foods, such as snacks, crisps, chocolates and the like, while involving with media. This tendency also contributes to body fattening because such foods contained high in fat, salt and sugar.

Although youths in Sabah are physically not active but generally there are some patterns of activities were observed. It appears that male respondents are more involved in a heavy or rigorous activity compared to female respondents. Rural respondents are also tend to be more active in physical activities as compared to the urban respondents.

7. Conclusion

Generally, youths in Sabah are not physically active. Most of them were only involved in some light physical activities. Although the percentage of overweight and obese respondent is low, those who were overweight are also avid users of media. Therefore, this study indicates some positive relationships between the usage of media, particularly television and hand phone, and the lack of physical activities among youths. It appears that much of their (leisure) times were used in front of TV or 'playing' with their hand phones and video games. Such an excessive involvement in media displaces the time (supposedly) to engage in rigorous physical activities. Some significant correlations between usage of media and body weight were also found in this study, which indicates that media not only displaced the time for physical activity, it also affects the waistlines of youths.

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