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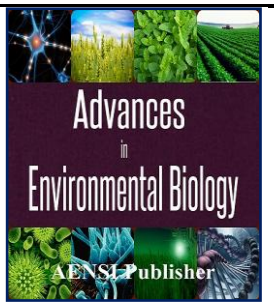

Socio-Demographic Variables Influence on Media Literacy towards Soft Drink Advertisement Among Adolescents in Klang Valley, Malaysia

[1]M.S Nur Nadirah, [1,2]M. Othman, [1]H. Ghazali and [1]A.Z.A. Bakar

[1]Department of Food Service and Management, Faculty of Food Science and Technology, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor Malaysia
[2]Institute of Halal Research Products, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor, Malaysia.

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ABSTRACT

Background: Media literacy was found to be a preventive method from being misled by soft drink advertising. **Objectives:** The purpose of this paper is to present research findings on media literacy towards soft drink advertisement among adolescent in Malaysia. This paper also examines the influence of adolescents' socio-demographic variable towards their media literacy on soft drink advertisement. **Results:** Results revealed that 45.1% of respondents possess good level of media literacy. Additionally, gender, age, ethnicity and grade of respondents were examined individually to determine the influences on respondents' media literacy score. However, the findings of this research show that respondents' media literacy score on soft drink advertisement differed across grades variable only ($F = 6.511$, $p = 0.000$). The total media literacy score on soft drink advertisement was significantly positively correlated with grades ($r = 0.328$, $p<.05$). **Conclusion:** It indicates that grades of adolescent could affect their media literacy. The importance of this study is to help the authorities, soft drink marketers and producers to better understand media literacy on soft drink advertisement among adolescent in Malaysia.

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INTRODUCTION

The increasing numbers of unbalance nutritional food and beverage advertisements to young people is a serious health concern. Adolescents' food choices can be influenced by food and beverage advertisements and it could affect their healthy diet too. Moreover, their food choices towards higher-fat or higher energy foods may be influenced by exposure to food and beverage advertising especially commercials for fast food, convenient foods, and soft drinks [19]. Additionally, adolescent was targeted by food and beverage companies with promotional message highlighting taste, convenience, and fun [18]. The marketers use this opportunity to gain attention of adolescents through television advertisement, since television is available in almost every household.

While watching television is one of the popular activities during their leisure time, this is perceived as the best way to market unbalance nutritional food and beverage to this target group.

Adolescent, especially young children was directly targeted by heavy marketing to develop brand awareness, brand preference, and brand loyalty [20]. This is because the aim of contemporary marketing is not only to expose young people to advertisement, but rather to encourage the development of ongoing engagement. Besides that, the industry has viewed children and adolescents as an important market force, given their spending power, purchase influence, and potential as future adult consumers [14]. The effect of advertisement is getting worse when the marketer use misleading message in food and beverage advertisement to convince adolescent.

For instance, author of Coke's Unconscionable New Ad article, responded to the Coca-Cola's statement: "All calories count. No matter where they come from including Coca Cola and everything else with calories" [8]. He revealed that Coca-Cola's latest effort to position itself against the rising tide of concern about the role of sodas in the obesity epidemic is unacceptable. The misleading message of this advertisement will influence

Corresponding Author: M. Othman, Department of Food Service and Management, Faculty of Food Science and Technology, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor Malaysia and Institute of Halal Research Products, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor, Malaysia.
E-mail: mohhidin@gmail.com

adolescents to consume soft drink more. They would think Coca Cola contain calories like others food and beverage. Furthermore, soft drink industry spent millions of dollars in advertising to persuade consumer to drink more sugary foods and beverages. Consequently, nearly 25% of adolescents consumed more than 738ml of soft drink per day in the U.S [10].

A nutrition education program was suggested to create awareness among children and adolescent to look for healthy food when choosing foods to eat in their daily diet [4]. When consumer's belief generated by the advertisement is different from the factual performance of the product, the misleading advertisement will occur [9]. It can happen without the consumer realizing it. Consumer may be deceived by the characteristic of advertising when they watch and receive attention from soft drink advertisement [11]. In this context of study, adolescent believed they will be happy by drinking soft drink and thinking calorie in soft drink is similar to consuming other food. However, they did not realize that this consequences can lead to adverse health such as dental caries, gastric mucosal damage and urinary stone disease [12].

Media literacy was found to be a preventive method from being misled by soft drink advertising. Several experts agree that media literacy is the ability to access, analyze, evaluate and create messages in variety of forms [3, 16]. Besides, media literacy is what people know about the world beyond their current environments received through the media. However, the media did not convey their message in neutral manner like giving untrue information which gives problems to society [21]. Media literate adolescent should be able to understand the media deeper and could differentiate between misleading advertisement or not. Thus, adolescent was recommended to be more sophisticated and media literate to overcome a heavy advertisement targeting them [13, 15]. Perhaps with media literacy initiative, unscrupulous soft drink consumption among adolescent will eventually reduce.

Very rarely previous research has explored the relationship between socio-demographic variable and media literacy on soft drink advertisement. However, there is one study that found positive relationship between students' grade and media literacy score. A research carried out in the United States, media literacy score of 338 college students was fairly correlated with their system knowledge in two places which are the Midwest (r= .267) and the Pacific Coast (r= .180) [2]. Good grades will perhaps assist students to become media literate and able to distinguish misleading message in advertisement.

This study specifically aimed at determining 1) media literacy score and level towards soft drink advertisement among adolescent in Klang Valley, 2) the influences of the adolescents' socio-demographic variables on soft drink advertisement.

Methodology:

Study design and sample selection:

The population of interest consisted of adolescent ranging from 13 to 18 years old. Data collection was carried out in Klang Valley. A total of 500 secondary school students from 10 selected schools were chosen and questionnaires were distributed between March 2014 and April 2014. Of 500 distributed questionnaires, only 463 were usable as 37 questionnaires were found missing, uncompleted, and thus rejected. The number of responses was reduced to 436 after cleaning the outliers. In addition, cluster sampling was utilized to select the sample from target population. Adolescents' population in Klang Valley was clustered into ten clusters based on district and the selected respondents were drawn to embody each cluster. List of secondary schools was determined based on each cluster and one school was selected to represent each cluster. The list of secondary schools was obtained from State and Federal Territories Education Department.

Procedure:

A self-administered questionnaire was used to gather data from adolescents in Klang Valley, Malaysia. To collect data from secondary school students in Klang Valley, prior approval from the Ministry of Education, Malaysia, State Education Department and school principals were attained. The questionnaires were administered to the adolescents during a class session or relief class in the presence of a teacher and the researcher. Before the questionnaires were distributed to respondents, briefing on the research was carried out. Besides that, the students were also informed about the confidentiality of the survey and the instruction to answer the questionnaire. At the end of the day, each student was given a can of chocolate malt drink as a token of appreciation for participating in the study.

Measures:

Media literacy:

The media literacy scale used in this paper was modified from smoking media literacy scale that was initially developed by Primack *et al.* in 2006 [17]. The smoking media literacy scale was adapted to create nutrition media literacy in discovering any relationship between media literacy and consumption of soda drinks [7]. There are 20 items measuring media literacy that were build based on three main fields such as authors, and audiences, messages and meanings and representation and reality. Participants rated the items based on a 5-point

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Likert scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree).

Statistical analyses:

Data was analyzed using Statistical Package for Social Science (SPSS) 21 version. Descriptive analysis was carried out to determine the score and level of media literacy towards soft drink advertisement among adolescent. Then, independent t-test and ANOVA was utilized to examine the influences of gender, age, ethnicity and grade of adolescents on the adolescents' media literacy score. Meanwhile, Pearson product-moment correlation analysis was used to assess the direction of relationship between grades and media literacy score on soft drink advertisement among adolescent.

RESULTS AND DISCUSSION

Respondents' Characteristics:

Table 1 shows the description of demographic data of respondents of this study. As can be seen in Table 1, 56% of the respondents were female. About 29% of respondents were in 15 years old group and only 1.6% of adolescents were in 18 years old group. This situation was due to the reason that not all secondary schools offer Form 6 level. Majority of respondents were Malay followed by Chinese and Indians. Furthermore, respondents frequently speak Malay with parent most of the times (68.8%). About 35% of them received A's and B's grades on most classes and only small number of the respondents received F's grade. Location of study play important role because most schools in the urban area have excellent facilities and best teachers to help students obtained good grade in examination.

Table 1: Description of demographic (n=436).

Demographic Profile	Percentage (%)
Gender	
Male	43.6
Female	56.4
Age	
13	16.1
14	3.4
15	29.6
16	25.2
17	24.1
18	1.6
Ethnicity	
Malay	70.4
Chinese	19.3
Indian	9.4
Others	0.9
Language when speaking with parents most of the times	
English	9.6
Malay	68.8
Mandarin, Cantonese, Hokkien	15.4
Tamil	6.2
Grades do they usually get in school	
Mostly A's	13.1
A's and B's	35.3
Mostly B's	18.3
B's and C's	18.6
Mostly C's	5.5
C's and D's	5.3
Mostly D's	2.5
D's and F's	1.1
Mostly F's	0.2

Media literacy level:

The minimum and maximum total scores from 436 respondents were 17 and 55 out of 55 score. Mean value for total score of 11 items was 40.11 ± 7.89. Table 2 presents the media literacy level distribution of respondent. The media literacy level is classified into five categories. Starting with *worse* level, minimum score of 11 (1 score (strongly disagree x 11 statements), and ending with *better* level, maximum score of 55 (5 score (strongly agree) x 11 statements).

The majority of the respondents (92.2%) fall within the classification of moderate to better media literacy level. Precisely, 41.5% of respondents scored good level of media literacy (scores ranging from 38 to 46 out of 55). Meanwhile, only 0.2% had worse level of media literacy (scores ranging from 11 to 19 out of 55).

Table 2: Respondent distribution of media literacy level (n=436).

Media Literacy Level	Frequency	Percentage (%)
Worse (11-19)	1	0.2
Bad (20-28)	33	7.6
Moderate (29-37)	123	28.2
Good (38-46)	181	41.5
Better (47-55)	98	22.5

The influence of socio-demographic variables towards media literacy score on soft drink advertisement among adolescents in Klang Valley:

Additionally, gender, age, ethnicity and grades of respondents were examined individually to determine the influences on respondents' media literacy score. Table 3 shows the differences of medial literacy based on socio-demographic profile. The Levene's Test of equality of variance shows that gender, ethnicity and grades except age variable were equal or homogenous ($p > 0.05$). However, the findings show that only the significant p-values for grades variable was found to be significant ($F = 6.51$, $p = 0.00$). It indicates that there was a significant mean differences in the media literacy score across the grades as respondents usually get in school.

To know better the nature of relationship between grades with media literacy score, Pearson Product-moment correlation was executed. The analysis was used to describe the direction and strength of the relationship. The result shows that grades has low positive relationship with media literacy score on soft drink advertisement ($r = 0.328$, $p < .05$). It indicates that higher respondents' grades are associated with higher media literacy score.

Table 3: Differences of media literacy based on Gender, Age, Ethnicity and Grades.

Gender								
	Female		Male		Levene's Test	Sig.	t - value	Sig.
Media literacy score	Mean	SD	Mean	SD	2.599	0.108	-0.146	0.884
	40.047	8.254	40.159	7.605				
Age								
Media literacy score	df	Sum of Squares	Mean Square	F-value	Sig.	Levene's Test	Sig.	
Between groups	5	1535.623	307.125	5.177	0.000	2.396	0.037	
Within groups	430	25511.093	59.328					
Total	435	27046.716						
Ethnicity								
Media literacy score	df	Sum of Squares	Mean Square	F-value	Sig.	Levene's Test	Sig.	
Between groups	3	95.261	31.754	0.509	0.676	1.109	0.345	
Within groups	432	26951.454	62.388					
Total	435	27046.716						
Grades								
Media literacy score	df	Sum of Squares	Mean Square	F-value	Sig.	Levene's Test	Sig.	
Between groups	8	2940.602	367.575	6.511	0.000	0.909	0.499	
Within groups	427	24106.114	56.455					
Total	435	27046.716						

Based on the results above, 35.3% of adolescents received A's and B's grades for most classes and very rarely for them to receive F's grade. Moreover, media literacy mean score among adolescent is quite high, which is 40.11 ± 7.89 and nearly most of them, achieved good level scores ranging from 41 to 48 out of 55 possible total score. The percentage of adolescents that achieved good grade and achieved good level in media literacy is high according to sample location. In this research, the location of schools sampled is mainly in urban areas that have well-equipped academic facilities and the best teachers to help students score good grades and gain awareness about media literacy. Klang Valley was selected as sample location because of high in population density [5]. Moreover, adolescents living in urban area such as Klang Valley were expected to have a higher media exposure via broadcast media such as television and radio. Each household must have at least a television set since the urban area had the highest mean of monthly gross household income [6]. The sample of schools selected in this study excluded boarding school, technical school, elite school and religious Islamic school as the student comes from all over the country.

According to the results, only grades variable in adolescent socio-demographic profile had influence towards media literacy score on soft drink advertisement among adolescent in Klang Valley. The positive relationship between students' grade and media literacy score was expected. In United of States, media literacy score of 338 college students was fairly correlated with their system knowledge in two places which are the Midwest ($r = 0.267$) and the Pacific Coast ($r = 0.180$) [2]. In addition, there is one research carried out in Pennsylvania involving 34 undergraduate students that explores relationship between media literacy score and

critical thinking skills measure. A significant positive relationship was found (r = 0.322) [1]. It indicates that media literacy also depends on critical thinking skill. Even though the critical thinking and grades is two different elements, but to get good grades students must have a good critical thinking.

Based on the result of this research, there is a low positive relationship between media literacy score and students' grades (r = 0.328, p<.05). The adolescent found to be more media literate, if they achieved good grades in class. In other words, if the student scored good grade, there are possibilities that they are more media literate. The school education could ensure students are media literate. Moreover, in Malaysia, there is no formal media literacy class being conducted in school. However, other subjects in school may also discuss information on media literacy. This situation could also be one of the factors why student who achieve high media literacy score also attained good grades in class. They are made aware and comprehend media literacy by their teacher. The positive correlation of media literacy and students' grade in this study could be similar to western countries even though media literacy class had been implemented in western countries few years ago.

Limitation:

There are some limitations in this research which required clarification. Firstly, a cross sectional study was applied in the research design where the sample data was collected from determined population at a certain time. Therefore, the finding may vary over the years and only appropriate for the specific period of time. The next limitation is the inability to generalise the findings. The result were collected from a moderate sample size when compared to its considerable geographic area like Klang Valley, where it would be worthwhile to expand this research throughout the country to improve the generalisability of the results. Thus, the finding cannot be generalised to the whole population of Malaysia. Last but not least, very rarely studies have ever explored the relationship between socio-demographic variables and media literacy among adolescent. The lack of prior research on this subject matter was also a challenge in finding a trend and an actual relationship especially in Malaysia.

Conclusion:

Overall, the results obtained from this study found that adolescent has attained a good level of media literacy score towards soft drink advertisement. It showed that adolescent is rational when deciding on the misleading messages in soft drink advertisement from the media. Meanwhile, there is significant difference in media literacy score among groups of adolescents' grades. Specifically, adolescents' media literacy was found to have a positive relationship with their grades in most classes. Thus, it indicated that higher adolescents' grades are associated with higher their media literacy score.

Hence, findings from this study could help the Ministry of Education and Ministry of Health to better comprehend media literacy and to consider the idea of safeguarding and preventing adolescent from being misled by media, especially on unhealthy food and beverage advertising towards secondary school students. Furthermore, finding of this study will also help soft drink marketers and producers to understand media literacy on soft drink advertisement among adolescents. The marketers could strategize better plan for soft drink advertisement, especially through mass media. The message in the advertisement needs to improve in term of quality, fact and not to be misleading. To further test these findings, longitudinal and experimental studies are proposed.

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