Tak Nak (Say No) Anti-Smoking Television Advertisement: Is it Influential Enough to Stop Smoking?

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ABSTRACT

This paper aims to look at the levels of exposure, awareness, receptivity, and assessment of the *Tak Nak* (Say No) anti-smoking television advertisement in Malaysia. At the same time, the study also explores possible relationships between the said factors with the intent to smoke. The study utilized self-administrated questionnaires to survey the perceptions people hold regarding the above stated matters. Despite the evidence showing the ineffectiveness of the *Tak Nak* anti-smoking television advertisement, the respondents still believe that all the elements (namely, exposure, awareness, receptivity, and assessment) are able to influence the intent to smoke. All the factors [exposure ($\chi^2 = 14.151$, $\rho = 0.007$), awareness ($\chi^2 = 10.471$, $\rho = 0.033$), receptivity ($\chi^2 = 33.149$, $\rho = 0.000$), and assessment ($\chi^2 = 10.359$, $\rho = 0.035$)] show significant relationships with the intent to smoke.

Keywords: Anti-smoking, advertisement, *Tak Nak* (Say No), Malaysia

INTRODUCTION

Smoking related illnesses have been one of the main public health concerns for many countries (Lim *et al.*, 2009). Based on the report by the Disease Control in 2003, as reported by the previous article, it was estimated that 10,000 deaths in Malaysia were due to these illnesses. This

rising concern over smoking addiction has encouraged the Malaysian government to take some serious efforts in implementing the Control of Tobacco Product Regulations 2004 and simultaneously complying with the requirements of the Framework Convention on Tobacco Control (Chew, 2011). One of the activities implemented is the *Tak Nak* (Say No) anti-smoking campaign. The *Tak Nak* anti-smoking campaign is held at state and national levels through various mass media channels such as television, newspaper, magazine, radio,

cinema, billboards, school advertising panels, giant posters and community boards. The nationwide anti-smoking advertising was allocated with RM 100 million to run over five years (Chew, 2011). Other than that, the Ministry of Health Malaysia had also set up Quit Clinics with a total of 421 clinics as of November 2010 in the country to help smokers quit their smoking habit. In addition, the Ministry of Health and the National Poison Centre have also established tobacco "Infoline" and "Quitline" to provide further access to cessation assistance for smokers.

According to Hyland *et al.* (2006), the anti-smoking television advertisement is an important component of comprehensive tobacco control programmes to counter massive advertising and marketing ploys attached to smoking. Several studies have indicated that anti-smoking television advertisement will eventually lead to a decline in the number of smokers. To add to these, Pierce *et al.* (1990) have also highlighted that smoking prevalence will be reduced when the anti-smoking television advertisement is televised at prime time, while Netemeyer *et al.* (2005), suggested that in producing anti-smoking television advertisement, the focus should be more on targeting specific anti-smoking beliefs such as the common belief of the harmfulness of tobacco smoke. Kim (2006) emphasized on using the right message framing instead. Findings by these researchers have also been supported by a study of Reardon and Miller (2008) which stated that intensity and timing of anti-smoking television

advertisement does contribute in reducing the number of smokers, provided that the anti-smoking television advertisement is a positive advertisement emphasizing on personal consequences instead of social consequences.

This study is motivated by two reasons. One is to discover the degree of the effectiveness of the *Tak Nak* anti-smoking television advertisement in terms of its exposure, awareness, receptivity and assessment of its targeted audience. The other is to look at possible relationships of all the selected elements on the people's intent to smoke in Malaysia.

MATERIALS AND METHODS

Literature Review

According to Vardavas (2009), mass media have played a key role in the historical increases and decreases in tobacco use globally, and they remain a powerful tool for public health advocates as an avenue of projecting health related messages. Through this aspect, it has been concluded that to be influenced by a message, an audience must be exposed to it, pay attention to it and understand it before they develop a cognitive or affective response.

Studies have revealed that anti-smoking television advertisements would lead to a reduction in smoking prevalence and consumption (e.g., Pierce *et al.*, 1990; Reardon & Miller, 2008). Other researchers such as Pechmann and Ratneshwar (1994) believed that the anti-smoking television advertisements reinforce a negative image towards smoking and peers who

smoke, and therefore, immunize viewers from believing favourable myths about smoking and smokers. These findings are supported by Pechamnn and Shih (1999) who have highlighted the importance of anti-smoking television advertisement by proving that scenes in the advertisement showing smoking as unwise, unattractive, and misguided had managed to taint the image of smoking. In a later study by Pechmann and Knight (2002), the outcome was pretty much similar in proving that anti-smoking television advertisement shown in conjunction with cigarette advertising made salient negative smoker stereotypes, and thus, evoked negative thoughts about peers who smoke. The same conclusion was also found in Farrelly *et al.* (2005).

Andrews (2004) further explained that anti-smoking television advertisements directly affect anti-smoking beliefs. A later study by Tangari *et al.* (2010) indicated that corrective statements in anti-smoking television advertisements conducted or sponsored by tobacco companies have a positive effect on anti-smoking beliefs. However, this tactic only has significant effects for light smokers but corrective statements were shown to be not effective at influencing chain smokers.

Over the years, the outcomes between anti-smoking television advertisement and smoking have been the subject of controversy in the research literature. While there are studies proving that anti-smoking advertisement helps in educating and reducing the number of smokers, there are also studies that said otherwise. For instance,

Landman *et al.* (2002) reported that anti-smoking television advertisement will bring a negative outcome if companies in tobacco industry are responsible or have a helping hand in conducting the advertisement. Surprisingly, Shanahan *et al.* (2008) insisted the use of an actor or an actresses in anti-smoking television advertisements, while seeming to be socially responsible, could actually reduce advertisement effectiveness. The study argued that the use of real victims gained stronger emotional response.

A later work by Capella *et al.* (2008), who used a quantitative integration (meta-analysis) of the entire anti-smoking television advertisement, reported that anti-smoking television advertisements do not have any significant effect on cigarette consumption.

Nonetheless, there is no definite review from past literature that suggests a fixed variable of measurement for effectiveness of anti-smoking television advertisements. However, various findings have indicated several factors which include exposure, awareness, receptivity, and assessment, as having an influence on the effectiveness of an anti-smoking television advertisement. It is therefore the intention of this study to integrate all the four factors in the *Tak Nak* anti-smoking television advertisement and also to determine their impacts on the intent to smoke.

The Framework

For the case of the advertisement exposure towards the public, both, Pierce *et al.* (1990), and Wakefield (1998) pointed out

that purchasing prime time to broadcast an advertisement is the best way to increase the level of exposure among public. In addition, Hyland *et al.* (2006) highlighted the importance of boosting up the gross rating points (GRP) to ensure higher advertising exposure. Duke (2009) combined both the ideas, concluding that purchasing prime time television spot would result in a wider reach, expanding among citizens living in the rural and low population density area. As a result, the higher GRP will lead to a higher smoking cessation rate nationwide.

Moreover, in terms of the awareness of the advertisement's contents, Niederdeppe *et al.* (2005) stated the importance of message clarity and stylistics presentation in order for the public to be aware of the message content of an advertisement. Reardon and Miller (2008) pointed out that the advertisement must be able to create an emotional arousal among the viewers in order for them to be aware of its message content.

In the case of enhancing a positive receptivity towards the advertisement, Devlin *et al.* (2007) emphasized the need to have different message themes as smokers' respond differently to different message appeals. Wolburg (2006), and Veer *et al.* (2008) also talked about the importance of different message framing for youth smokers. Samu and Namita (2008) highlighted different initiatives advertisement is needed for gender, while Niederdeppe (2008) focused on different initiatives for educated and less educated smokers. Hamilton (2001), and Laroche *et*

al. (2001) agreed that more targeted anti-smoking television advertisement messages directed to different cultures are needed.

Finally, to get a higher chance of favourable assessment towards the advertisement, Pechmann *et al.* (2003) concluded that health scare messages and themes work best although Reardon *et al.* (2006) stated that adolescents with high uncertainty avoidance responded more favourable towards them, whereas the opposite was held for adolescents with low uncertainty avoidance. In addition, Kim (2006) explained that a promotion-framed anti-smoking television advertisement is more likely to influence independent self-view teenagers to stop smoking while prevention-framed anti-smoking television advertisement is more likely to persuade inter-dependent teenagers to stop smoking.

To sum it up, the literature review of earlier studies shows that effectiveness of anti-smoking television advertisement is very much dependent upon the following factors: (1) public exposure towards the of the advertisement, (2) awareness of the advertisement's contents, (3) receptivity towards the advertisement, and (4) assessment of the advertisement in influencing the intention to smoke after watching the advertisement. The framework is shown in Fig.1.

Based on the above discussion, four hypotheses were formulated for this study:

H$_1$:The level of exposure on the *Tak Nak* anti-smoking television advertisement has a significant relationship on the intention to smoke.

H$_2$: The level of awareness on the *Tak Nak* anti-smoking television advertisement has a significant relationship on the intention to smoke.

H$_3$: The level of receptivity on the *Tak Nak* anti-smoking television advertisement has a significant relationship on the intention to smoke.

H$_4$: The level of assessment on the *Tak Nak* anti-smoking television advertisement has a significant relationship on the intention to smoke.

Sampling

For this particular study, questionnaires were distributed randomly although some selection characteristics were applied to the sampling frame so that it consisted of people who had expressed their willingness to respond to pen and pencil surveys, had a wide range of ages from 18 years old to over

65 years old and an approximately equal representation of gender, as well as coverage of smokers and non-smokers. The selection restrictions to the sampling frame were also adopted to ensure that the external validity of the results would be strengthened where the sample was representative and could be generalized to a wider population. Overall, 200 questionnaires were hand-delivered to potential respondents. Out of 200, 171 sets of these questionnaires were collected and deemed as usable.

Measurement

The survey incorporated two statements on exposure based on Smith and Stutts (2006), while four item measures on the awareness towards the advertisement were taken from Netemeyer *et al.* (2005). In addition, three item measures for receptivity towards the message content of an advertisement were adopted from Duke *et al.* (2009), and the
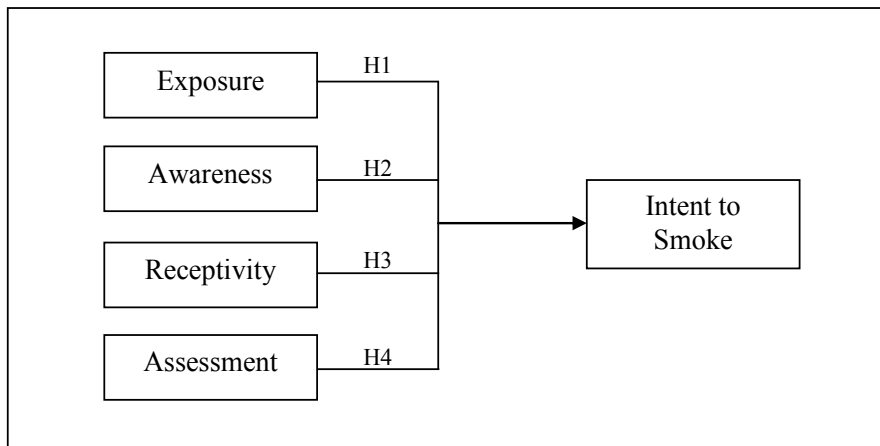

Fig.1: The relationship between exposure, awareness, receptivity, and assessment towards the effectiveness of the *Tak Nak* anti-smoking television advertisement

Note: H1: Hypothesis 1; H2: Hypothesis 2; H3: Hypothesis 3; H4: Hypothesis 4

four item measures on the assessment towards an advertisement were taken from Beltramini and Bridge (2001). Finally, the three item measures regarding the intent to smoke after watching the advertisement were taken from Reardon *et al.* (2006).

The respondents were asked to answer all the rating statements based on a 4 point Likert scale ranging from 1 = definitely not; 2 = probably not; 3 = probably yes; and 4 = definitely not. In addition, six general demographic questions were included in the questionnaire to understand the characteristics of the sample. Collecting these demographic data enabled the research to generate descriptive statistics and to further analyze any sub-groups of the survey respondents, if required. The demographic questions focused on gender, age, race, religion, occupation, and education level.

The categorical data of the smoking behaviour in the questionnaire were adopted from the 2003 Global Youth Tobacco Survey done in Malaysia. If the respondents had tried smoking, even one or two puffs, they were required to answer the three remaining questions in the section. The first one was the smoking initiation age. For this question, the answers ranged from "I have never smoked cigarettes"; 7 years old or younger; 8 or 9 years old; 10 or 11 years old; 12 or 13 years old; 14 or 15 years old; and 16 years old or older. The next two questions looked at the amount of cigarettes smoked within a month and the total number of cigarettes smoked within a day of that stated month. The answers to the question on the number of cigarettes smoked during the past 30 days (one month) were divided into seven

categories; 0 day; 1 or 2 days; 3 to 5 days; 6 to 9 days; 10 to 19 days; 20 to 29 days; and all 30 days. Finally, seven categories were outlined for the last question on the smoking behaviour where the respondents were asked of the number of cigarettes taken on the days the respondents spent smoking within the last 30 days. The categories were: "I did not smoke cigarettes during the past 30 days (one month)"; "less than 1 cigarette per day"; "1 cigarette per day"; "2 to 5 cigarettes per day"; "6 to 10 cigarettes per day"; "11 to 20 cigarettes per day"; and "more than 20 cigarettes per day."

Reliability Analyses

As indicated in Table 1, the results of the reliability analysis show that all the measurements are reliable. As each of the alpha value is above 0.6, these data are within the range of having acceptable internal consistency to be used in the project study (Cronbach, 1951).

TABLE 1
Results of the Reliability Analysis

Description	No. of Items	Cronbach's Alpha (α)
Exposure	2	0.786
Awareness	4	0.907
Receptivity	3	0.928
Assessment	3	0.927
Intent to Smoke	3	0.885

RESULTS AND DISCUSSIONS

Out of 200 questionnaires distributed and collected, 171 questionnaires were returned, resulting in the response rate of 85.5%.

TABLE 2
Socio-Demographic Profile of the Respondents

Demographic Factor	Frequency	Percent (%)
Gender		
Male	92	53.8
Female	79	46.2
Total	171	100.0
Race		
Malay	47	27.5
Chinese	105	61.4
Indian	18	10.5
Others	1	0.6
Total	171	100.0
Age		
20 and below	22	12.9
21 to 30 years	99	57.9
31 to 40 years	19	11.1
41 to 50 years	14	8.2
51 and above	17	9.9
Total	171	100.0
Level of Education		
High School	46	26.9
STPM/Diploma	40	23.4
Degree	83	48.5
Masters	2	1.2
Total	171	100.0
Religion		
Muslim	47	27.5
Buddhism	75	43.9
Hindu	18	10.5
Christian	30	17.5
Others	1	0.6
Total	171	100.0
Occupation		
Manager	16	9.4
Sales/Marketing	23	13.5
Administration	25	14.6
Student	90	52.6
Others	17	9.9
Total	171	100.0

Table 2 shows the demographic profile of the respondents. Out of 171 respondents, 92 of them are males (53.8%). The remaining 79 are females, equating to 46.2% of the sample size. Majority of the respondents are Chinese, with a total of 105 respondents (61.4%). The second largest are the Malays, with 47 respondents (27.5%). The majority of the respondents are in the age category ranging from 21 to 30 years old, equating to 57.9% of the total respondents. As for the level of education, a majority of the respondents are degree holders, with a total of 83 respondents (48.5%). The second highest are SPM holders, with a total of 46 respondents (26.9%), followed by STPM holders, with a total of 40 respondents (23.4%). Lastly, 1.2% of the total respondents are Master's degree holders. In terms of religion, the highest percentage was contributed by Buddhists with 75 respondents (43.9%), followed by Muslims with 47 respondents (27.5%), and Christians with 30 respondents (17.5%). Majority of the respondents are students, with a total of 90 respondents (52.6%), while the second highest category of the respondents comprised of those working in the administration field, with a total of 25 respondents (14.6%).

Description of the Smoking Behaviour

Table 3 shows the breakdown of smokers and non-smokers among the respondents. Out of 171 respondents, 108 of them are smokers, while the remaining 63 are non-smokers. In other words, more than half (63.2%) of the population are smokers.

Table 4 summarizes the age breakdown of smoking initiation among respondents who smoke or used to smoke. The total number of the respondents whose smoking initiation age is in the primary school years is 10 people totalling to 9.3%. This category represents the respondents in the age of 7 to 11 years old. Meanwhile, 49 people were in the smoking initiation age at the early secondary school years, with 45.4%. This category represents those in the age of 12 to 15 years old. Finally, the respondents in the smoking initiation age category for young adults were also 49 people, with 45.4% as well. This category represents those in the age of 16 years old or older. It can therefore be concluded that majority of the respondents started smoking during their teenage years (13-18 years old).

Table 5 illustrates the number of smoking days per month for the respondents who smoke or used to smoke. Twenty-five out of the 108 respondents (23.1%) might be ex-smokers because they had not been smoking for the past one month. Meanwhile, 34 people (31.5%) were reported to smoke all 30 days of the month recorded, followed 5 respondents (4.6%) who smoked 3 to 5 days per month, while 15 respondents (13.9%) smoked 6 to 9 days per month. A total of 17 respondents (15.7%) said they smoked 10 to 19 days per month and finally, 12 respondents (11.1%) stated they smoked 20 to 29 days per month. Table 6 summarizes the amount of cigarettes a smoker smokes per day for the past 30 days for the respondents who are currently smoking and used to smoke. For this, 25

TABLE 3
Smoking Behaviour

		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	Yes	108	63.2	63.2	63.2
	No	63	36.8	36.8	100.0
	Total	171	100.0	100.0	

TABLE 4
Smoke Initiation Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7 years old or younger	1	.6	.9	.9
	8 or 9 years old	5	2.9	4.6	5.6
	10 or 11 years old	4	2.3	3.7	9.3
	12 or 13 years old	11	6.4	10.2	19.4
	14 or 15 years old	38	22.2	35.2	54.6
	16 years old or older	49	28.7	45.4	100.0
	Total	108	63.2	100.0	
Missing	System	63	36.8		
Total		**171**	**100.0**		

respondents (23.1%) answered that they did not smoke a single stick for the past 30 days. This pattern indicated that they might be ex-smokers. Meanwhile, 24 respondents were recognized as social smokers (i.e. less than 1 cigarette to 5 cigarettes per day), with 23.2%. For the case of light smokers (6 to 10 cigarettes per day), 26 respondents were recorded (24.1%). A total of 17 respondents (15.7%) were categorized as heavy smokers (11-20 cigarettes per day). Finally, a total of 15 respondents were considered as chain smokers (more than 20 cigarettes per day), with 13.9%.

LEVEL OF EXPOSURE, AWARENESS, RECEPTIVITY, AND AWARENESS OF THE *TAK NAK* ANTI-SMOKING TELEVISION ADVERTISEMENT

Table 7 illustrates the respondents' level of exposure to the *Tak Nak* anti-smoking television advertisement. From the table, it can be seen that the majority of the respondents were not exposed to the *Tak Nak anti-smoking* television advertisement at all. Out of the 171 respondents, 109 of them had not viewed the advertisement at all, while 53 others thought they might have viewed it,

TABLE 5
Amount of Days Smoking Per Month

		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	0 days	25	14.6	23.1	23.1
	3 to 5 days	5	2.9	4.6	27.8
	6 to 9 days	15	8.8	13.9	41.7
	10 to 19 days	17	9.9	15.7	57.4
	20 to 29 days	12	7.0	11.1	68.5
	All 30 days	34	19.9	31.5	100.0
	Total	**108**	**63.2**	**100.0**	

TABLE 6
The amount of cigarettes a smoker smokes per day

		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	I did not smoke cigarettes during the past 30 days (one month)	25	14.6	23.1	23.1
	less than 1 cigarette per day	1	.6	.9	24.1
	1 cigarettes per day	2	1.2	1.9	25.9
	2 to 5 cigarettes per day	22	12.9	20.4	46.3
	6 to 10 cigarettes per day	26	15.2	24.1	70.4
	11 to 20 cigarettes per day	17	9.9	15.7	86.1
	more than 20 cigarettes per day	15	8.8	13.9	100.0
	Total	108	63.2	100.0	

and only 9 confirmed that they had viewed the advertisement. This findings show that the execution strategy of airtime for the *Tak Nak* anti-smoking television advertisement is a failure because out of 171 respondents, only 9 had viewed the advertisement.

Table 8 shows the respondents' level of awareness to the message content of the *Tak Nak* anti-smoking television advertisement. Out of 171 respondents, only 23 were aware of the message contents of the advertisement, while 108 believed they understood the message content of the advertisement, and the remaining 40 did not have any clue at all about the message content of the advertisement. Similarly, the statistics also shows that the selection of the medium to air the *Tak Nak* anti-smoking television advertisement is not effective in increasing the public awareness of the message contents of the advertisement.

Table 9 shows the respondents' level of receptivity to the message content of the *Tak Nak* anti-smoking television advertisement. Out of 171 respondents, 85 felt that the advertisement was only a waste of time and money, while 68 other assumed it might work. On the contrary, the remaining 18 were confident the advertisement would work to a great effect. The findings prove that the message content in the current *Tak Nak* anti-smoking television advertisement is not influential enough in persuading smokers to stop smoking. Table 10 shows the respondents' level of assessment to the message content of the *Tak Nak* anti-smoking television advertisement. Out of 171 respondents, 51 do not believe or choose not to believe the message content of the advertisement. Meanwhile, 94 have doubts

TABLE 7
The level of exposure of the *Tak Nak* anti-smoking television advertisemen

| | | GrInt | | | Total |
		1.00	2.00	3.00	
GrExp	Have not viewed at all	71	31	7	109
	Might have viewed	41	10	2	53
	Confirmed to have viewed	6	0	3	9
	Total	118	41	12	171

Note: GrInt – Group Intent; GrExp – Group Exposure

TABLE 8
The level of awareness of the *Tak Nak* anti-smoking television advertisement

| | | GrInt | | | Total |
		1.00	2.00	3.00	
GrAware	No clue of the message	26	10	4	40
	Might understand the message	74	30	4	108
	Aware of the message	18	1	4	23
	Total	118	41	12	171

Note: GrInt – Group Intent; GrAware – Group Awareness

on the message content of the advertisement. The remaining 26 believe the message content of the advertisement. These findings prove that the message content of the *Tak Nak* anti-smoking behaviour is not able to influence the respondents' self-view of the negativity of smoking in Malaysia.

Despite the evidence showing the ineffectiveness of the *Tak Nak* anti-smoking television advertisement, the respondents still believe that all the elements (exposure,

awareness, receptivity, and assessment) are able to influence the intention to smoke. All the factors [exposure (χ^2 = 14.151, ρ = 0.007), awareness (χ^2 = 10.471, ρ = 0.033), receptivity (χ^2 = 33.149, ρ = 0.000) and assessment (χ^2 = 10.359, ρ = 0.035)] show significant relationships with the intent to smoke (refer to Table 11, Table 12, Table 13, and Table 14). Indirectly, the respondents feel that if the *Tak Nak* anti-smoking television advertisement is aired at least

TABLE 9
The level of receptivity to the *Tak Nak* anti-smoking television advertisement

		GrInt			Total
		1.00	2.00	3.00	
GrRec	Waste of time	43	34	8	85
	Assumed it might work	60	7	1	68
	Work to great effect	15	0	3	18
	Total	118	41	12	171

Note: GrInt – Group Intent; GrRec – Group Receptivity

TABLE 10
The level of assessment on the *Tak Nak* anti-smoking television advertisement

		GrInt			Total
		1.00	2.00	3.00	
GrAssess	Did not believe message	31	16	4	51
	Doubt message	66	24	4	94
	Believe message	21	1	4	26
	Total	118	41	12	171

Note: GrInt – Group Intent; GrAssess – Group Assessment

TABLE 11
Chi-square Test of Independence for Exposure and Intent to Smoke

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.151[a]	4	.007*
Likelihood Ratio	12.182	4	.016
Linear-by-Linear Association	.043	1	.835
N of Valid Cases	171		

*Correlation is significant at 0.05 level (2-tailed)

at appropriate time of viewing, contains clear messages, uses the right theme, and manages to become favourable to many, it will be able to have an effect on the viewers' intent to smoke.

CONCLUSION

In general, the findings of the study have shown that the effectiveness of the *Tak Nak* anti-smoking television advertisement (intent to smoke) depends on the respondents' level of exposure to the advertisement, awareness towards the

message content of the advertisement, positive receptivity towards the message content of the advertisement, and favourable assessment towards the message content of the advertisement.

In the case of the *Tak Nak* anti-smoking television advertisement, the level of exposure towards the advertisement is very low, with only 9 out 171 respondents have watched the advertisement. Due to this low level of exposure, the *Tak Nak* anti-smoking television advertisement is assumed to have not been aired during the

TABLE 12
Chi-square Test of Independence for Awareness and Intent to Smoke

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.471[a]	4	.033*
Likelihood Ratio	11.604	4	.021
Linear-by-Linear Association	.278	1	.598
N of Valid Cases	171		

*Correlation is significant at 0.05 level (2-tailed).

TABLE 13
Chi-square Test of Independence for Receptivity and Intent to Smoke

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	33.149[a]	4	.000*
Likelihood Ratio	38.184	4	.000
Linear-by-Linear Association	11.832	1	.001
N of Valid Cases	171		

*Correlation is significant at 0.01 level (2-tailed).

TABLE 14
Chi-square Test of Independence for Assessment and Intent to Smoke

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.359[a]	4	.035*
Likelihood Ratio	12.162	4	.016
Linear-by-Linear Association	1.089	1	.297
N of Valid Cases	171		

*Correlation is significant at the 0.05 level (2-tailed).

peak hours to capture viewers' attentions. This finding does not support the results by Pierce, Macaskill and Hill (1990) and Duke (2009), in which the advertisement aired at prime time television spot would receive the maximum exposure.

In addition, the findings also show that the awareness towards the message content of the *Tak Nak* anti-smoking television advertisement is not better as well, with the majority of the respondents having no idea or lack the awareness towards its message content. Once again, the findings go against what has been stated by Wakefield (1998), i.e. the public would be aware of the message content of the advertisement, provided that the advertisement was aired at sufficient exposure levels and at regular intervals.

It was deduced earlier that positive receptivity and a favourable assessment towards the message content played a role in determining the effectiveness of an anti-smoking television advertisement. However, the message content of the *Tak Nak* anti-smoking television advertisement has a very low level of receptivity and also an unfavourable assessment as many believe that the advertisement is only a gimmick, and a waste of money and time. This result supports the finding of Devlin, Eadie, Stead and Evans (2007) which highlighted that there is no single anti-smoking television advertisement that can appeal to all smokers universally. At the same time, this result has failed to support the studies by Hamilton (2001), and Netemeyer, Andrews and Burton (2005), Miller, Froubert, Reardon

and Vida (2006), and Wolburg (2006) who stated that advertisement should not just show the physical effects of smoking on the smokers, but also the emotional toll on both the smokers and their family members. Although the *Tak Nak* anti-smoking television advertisement has integrated the elements of physical effects and the emotional toll of relevant parties, it still does not manage to gain enough positive receptivity and likeable assessment from the audience.

The above conclusions are somehow skewed from the other findings that show the respondents' positive perceptions on the impacts of all the four factors: exposure, awareness, receptivity, and assessment towards the intent to smoke. For instance, many respondents feel that the effects on the intent to smoke will be higher if the *Tak Nak* anti-smoking television advertisement is aired at least at appropriate viewing time, contains clear messages, uses the right theme, and manages to be favourable to many. Thus, what went wrong with the *Tak Nak* anti-smoking television advertisement here in Malaysia? Some recommendations are deemed to be applicable to improve its effectiveness. First of all, in order to increase the exposure of the advertisement and the awareness towards the message content of the advertisement, the step of purchasing prime-time television advertising spots should be maintained. However, this time around, the purchase should not focus on national television channels only. Instead, it should also include Malaysian Satellite Channels as well, such as Astro. In the case

of Astro, the time for the advertisement should not be on prime time only, but on other strategic time or slots based on media panel's data and viewer statistics of Astro. As for the case of positive receptivity and favourable assessment, it is perhaps time to change the message contents of the advertisement. It is advisable to focus more on promotion focused advertisement by pointing out the benefits of not smoking compared to smoking rather than using health scare tactics to reduce the intent to smoke (Kim, 2006). Apart from this, the theme of social consequences of smoking is applicable as well because according to Laroche, Taffoli, Zhang and Pons (2001), social consequence advertisements work best in Asian countries with a collectivist culture.

One of the limitations of the study is the dependent variable used. There are many variables used in determining the effectiveness of anti-smoking television advertisement. Perhaps, intent to smoke is not a strong indicator because intent is just a mental state of mind without action instead of final action, where there is physical evidence that smoking has stopped for a certain individual. Moreover, there was a time constraint in conducting this study.

SUGGESTIONS FOR FUTURE RESEARCH

Like most studies on the effectiveness of anti-smoking television advertisement, this study was conducted based on quantitative method. It is suggested that qualitative study also needs to be incorporated in determining the effectiveness of anti-smoking television advertisement as doing so will provide more accurate and reliable information from the respondents. Furthermore, future study should consider adding more variables into the framework so that a more concrete and precise finding can be tabulated.

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APPENDIX

ITEMS IN THE MEASUREMENTS

Items	Measures
During the past 30 days (one month), the chances of me viewing the *Tak Nak* antismoking television advertisement frequently is very high.	Exposure
I am likely to see *Tak Nak* antismoking television advertisement on a frequent basis.	Exposure
Are you aware of the contents in *Tak Nak* antismoking television advertisement?	Awareness
Did you know that *Tak Nak* antismoking television advertisement is telling you that smoking causes heart disease?	Awareness
Did you know that *Tak Nak* antismoking television advertisement is telling you that smoking causes mouth cancer?	Awareness
Did you know that *Tak Nak* antismoking television advertisement is telling you that smoking will cause an amputated leg?	Awareness
Tak Nak antismoking television advertisement is convincing	Receptivity
Tak Nak antismoking television advertisement grabbed my attention	Receptivity
Tak Nak antismoking television advertisement gave me good reasons not to smoke	Receptivity
Does *Tak Nak* antismoking television advertisement tell you all the bad things caused by smoking?	Assessment
Does *Tak Nak* antismoking television advertisement tell you the truth about smoking?	Assessment
Do you believe what *Tak Nak* antismoking television advertisement tells you about smoking?	Assessment
After watching *Tak Nak* antismoking television advertisement, is there a chance you might smoke one puff or more of a cigarette?	Intent to smoke
After watching the *Tak Nak* antismoking television advertisement, you might try out cigarette smoking for a while.	Intent to smoke
After watching the *Tak Nak* antismoking television advertisement, if one of your best friends were to offer you a cigarette, you would smoke it?	Intent to smoke