

THE EFFECTIVENESS OF ANTI-SMOKING ADVERTISEMENTS: THE ROLES OF MEDIA

Soe Soe Aye¹, Aliff Syakir Bin Suwardi², Nur Adelin Binti Mazlan², Shopana A.P Peter², Kavinmouli A.P Muniandy², Roshene Devi A.P Rajasekharan²

¹Department of Paediatrics, Faculty of Medicine, Asia Metropolitan University, Johor, Malaysia; ²Community and Health Department, Faculty of Medicine, Asia Metropolitan University, Malaysia

ABSTRACT

Introduction: Smoking is responsible for many complications and also cause one-third of all deaths worldwide. It is estimated that approximately 8 million deaths in 2019 according to World Health Organisation (WHO). It is always associated to cardiovascular disease and mainly respiratory disease. Hence, smoking is a major public problem in Malaysia.

Research problem: According to the majority of local's perception especially the teenagers, it is believed that the anti-smoking advertisements among the students in secondary school were not effective.

Significance: The findings of this study will contribute to the benefit of the people especially teenagers considering that smoking advertisement can prevent the students from smoking and stop them from continuing smoking. This study was undertaken to justify that the anti-smoking advertisement can affect their smoking behaviour.

Purpose: This study was aimed to determine the social demographic status of the respondents, to evaluate the respondents' perception on anti-smoking advertisement, to identify the most preferred social medias for anti-smoking advertisement and to determine the effectiveness of anti-smoking advertisements.

Method: A cross sectional descriptive study was conducted to assess the effectiveness of anti-smoking advertisements among teenagers' population. Individuals from thirteen to sixteen years old were chosen for this research. The social demographic status of the respondents, respondents' perception on anti-smoking advertisement, the most preferred social medias for anti-smoking advertisement and the effectiveness of anti-smoking advertisement were employed for data collections.

Result: The respondents' perceptions of anti-smoking advertisements has the average mean of 2.88 which shows that the anti-smoking advertisements were not useful to them. Next, the most preferred social medias for anti-smoking advertisement was televisions while the least preferred was billboards. After that, for the effectiveness of anti-smoking advertisements, the average mean shows 2.46 which means the advertisements were not effective to them.

Conclusion: Results of this study revealed that the anti -smoking advertisement among student was not very effective.

Keywords: Anti-smoking advertisement, media, effectiveness, perceptions, respondents.

BACKGROUND

Background of the study

Smoking associated illnesses have been one of the primary public fitness issues for many international countries. Based on the file through the Disease Control 2003, it used to be estimated that 10,000 deaths in Malaysia have been due to the illnesses caused by smoking. This rising problem over smoking dependency has prompted the Malaysian government to take some serious efforts in enforcing the Control of Tobacco Product Regulations 2004 and concurrently complying with the necessities of the Framework Convention on Tobacco

Control. One of the activities applied is TakNak (Say No) anti-smoking campaign. The TakNak anti-smoking marketing campaign is held at states and national stages through a variety of mass media channels such as television, newspapers, magazines, radio, cinema, billboards, school advertising panels, giant posters and community boards.

The nationwide anti-smoking advertising used to be allocated with RM one hundred million to run over 5 years. Other than that, the Ministry of Health Malaysia had additionally set up Quit Clinics about 421 clinics all over Malaysia on November 2010. Ministry of Health and the National Poison Centre have additionally established tobacco “Infoline” and “Quit Line” to provide further get right of entry to cessation assistance for smokers. According Hyland (2005), the anti-smoking television advertisement is important aspects of complete tobacco manipulate programs to counter huge advertising and marketing and marketing ploys attached to smoking. Several researches have indicated that anti-smoking to advertisement will finally lead to a decline in the variety of smokers.

In addition, a researcher highlighted that smoking incidence will be decreased when the anti – smoking television commercial is televised at high time while another researcher suggested that in producing anti-smoking television advertisement, the centre of attention should be greater on focusing on specific anti-smoking beliefs such as frequent faith of the harmfulness of tobacco smoke. Kim (2006) emphasized on the use of the proper message framing instead. Findings of these researchers have additionally been supported by Reardon and Miller (2008) which referred to that depth and timing of anti-smoking television advertisement does contribute in reducing the wide variety of smokers, furnished that the anti-smoking television advertisement is a high quality commercial emphasizing on non-public penalties as an alternative of social consequences. This study is to discover the degree of the effectiveness of the TakNak anti-smoking TV commercial in terms of its exposure, awareness, receptivity and assessment of its centred audience.

It is evident that smokers find it extremely difficult to quit smoking and they failed so many times because of the lack of information about its side effects. These anti-smoking campaigns are trying to fill this gap and motivate people to quit smoking. Government spends 100’s crores annually for anti-smoking campaigns every year, but this amount needs to be justified with respect of decreasing smoking rate among youth. This research primarily focuses on evaluating the effectiveness of anti-smoking advertisements among school students. Our purposes of this research are to determine the social demographic status of the respondents, to evaluate the respondents’ perception on anti-smoking advertisement, to determine the effectiveness of anti-smoking advertisement medias and to identify the most preferred social medias for anti-smoking advertisements.

Problem statement

In 2012, Global Adult Tobacco Survey (GATS) determined out that 23.1% Malaysian aged 15 and above smokes and it continues to extend yearly. In the past, from the year 2004 to 2010, the Malaysian health Ministry have been decided to curb the smoking difficulty that had been arising in the country, especially among the youths (Hong, Soh, Abdullah, Khan & Teh 2013). “TakNak” smoking marketing campaign was once launched and broadcast on all forms of media in Malaysia.

The marketing mediums include poster billboards, authority premises, newspaper, magazine, tv and radio (Tan, 2013). However, this campaign was evaluated throughout the years and was located to be efficient in creating awareness, however it was not efficient

enough to help them to quit smoking but sufficient to encourage people to cease smoking. About 43% of the smokers in Malaysia have seen or heard about the marketing campaign and cited that they were influenced through the campaign. Smoking amongst youths is on the upward shove (Hong, Soh, Abdullah, Khan & Teh, 2013). Conversely, women who smoke are additionally on the rise. According to ITC assignment (2012), “beliefs related to smoking are necessary predictors of smoking behaviour amongst youths”.

Negative Consequences

Despite the success of antismoking advertisement that aim to prevent the public from smoking, this qualitative study provides strong evidence that different initiatives are needed for the public, particularly those who already smoke. When asked for responses to current antismoking messages, non-smokers generally championed the cause; however, smokers often responded with anger, defiance, denial, and other negative responses. Consumers who respond in this manner are not well served by existing strategies, and money used for such advertisement could be better spent. New strategies are offered in hopes that antismoking advertisement can communicate more effectively with one high-risk group—college student smokers.

METHODOLOGY

Study Design

This research employed cross-sectional study design to evaluate the effectiveness of anti-smoking message in Malaysia. This research was conducted in High School Muar and Sekolah Menengah Kebangsaan Tun Perak. There were around 800+ students in High School Muar and 800+ students in Sekolah Menengah Kebangsaan Tun Perak. Questionnaires were distributed among the students in both schools.

Study Population

The target population was the students aged from 13-16 years old in Muar.

Research Instrument

In our questionnaire, there were three specific objectives; the respondents' perception on anti-smoking advertisement, the most preferred social medias for anti-smoking advertisement and the effectiveness of anti-smoking advertisement. At the beginning of the questionnaire, the questions were regarding to the sociodemographic details of the respondents, followed by the questions related to the effectiveness of anti-smoking advertising message and respondents' perception towards anti-smoking advertisement message and the most preferred social medias for effective anti-smoking advertisement. In order to answer the questions, the stated scores will be the guidance. 0 indicates you were strongly disagree, followed by 1 was slightly disagree, 2 was disagree, 3 was agree and 4 was strongly agree.

Sampling Procedure

Majority of the smokers initiate smoking at their early age of adolescent years (60%). This sample group aged 13-16 years old was chosen because the main target audiences for anti-smoking campaigns in Malaysia are youths. Other than that, this targeted audiences have better ability to quit smoking compared to adult smokers. The sample size of this survey is 400 students.

Data Collection

The response rate in this survey was 99%. Out of 400 questionnaires, only 4 questionnaires were incomplete and not given back by the students. As a result, a total of 396 questionnaires are being used in the data analysis.

Data Analysis Procedure

The collected data was filled and interpreted using SPSS Statistics Version 23. Data analysis including descriptive statistics was used to describe participants' social demographic status, tables, percentage, mean and standard deviation was used to present the results.

Content validity was done by Faculty of Medicine. The Content Validity Index (CVI) was 0.867. Face Validity was also done by computing the Crohnbach's alpha and was 0.701 (>0.7) therefore it was reliable.

Validity and Reliability of The Questionnaires**Content validity**

According to the CVI index, a rating of three or four indicates the content is valid and consistent with the conceptual framework (Lynn 1996). For example, if two of four content experts rate an item as relevant (3 or 4) the CVI would be $2/4=0.5$ which does not meet the $3/4=0.75$ level required, and indicates the item should be dropped (Devon et. al.2007).

However, all items in our instrument were valid with CVIs ranging from $3/4=0.75$ to $4/4=1.00$ and thus, were retained.

Face validity

All respondents rated each parameter at three or four on a Likert scale 0-4. Hundred percent indicated they understood the questions and found them easy to answer, and hundred percent indicated the appearance and layout would be acceptable to the intended target audience.

Internal Consistency Reliability

Internal consistency reliability was done by computing the Chronbach's alpha and it was 0.701. Therefore, it was reliable.

Ethical Considerations

The study was approved by the Medical Research Ethics Committee (MREC) of Asia Metropolitan University, Malaysia. Only those who were willing to join the research were chosen as samples. Participants' informed consent was taken from the individual and written consent was obtained. The participants' signature indicates that they had read and understood the information regarding this research study and consent to allow us to conduct this study. All the information they provide was kept as confidential.

RESULTS AND DISCUSSION**Table 1 : Social Demographic Status Of Respondents**

Variables	Frequency	Percentage
1) Gender		
MALE	339	85.6
FEMALE	57	14.4
2) Age		
13	169	42.7
14	130	32.8
15	37	9.3
16	60	15.2
3) Ethnic		
MALAY	258	65.2
CHINESE	112	28.3
INDIAN	17	4.3
OTHERS	8	2.0

Table 1 shows the respondents' profiles in terms of their gender, age and ethnic background. The respondents consist of 85.6% males and 14.4% females. The majority respondents are around age of 13 (42.7%) followed by 14 (32.8%). The Malay students (65.2%) was the largest ethnic group in the survey.

Table 2 : Respondents' Perception On Anti-Smoking Advertisement

QUESTIONS	MEAN	STANDARD DEVIATION
1) Did the advertisements provide useful information?	3.07	1.008
2) Did the advertisements provide educational information?	3.07	0.906
3) Was the advertisement easy to understand?	2.95	0.936
4) Was the advertisement worthwhile to read?	2.77	1.096
5) Was the fear message effective?	2.54	1.174

Referring to Table 2, the mean for the useful information provided by the advertisement, the educational information provided by the advertisement and the understanding of the advertisement are close to 3.00. However, the mean for the worthwhile of reading advertisements and effectiveness of fear messages are close to 2.50. we can conclude that the respondents disagreed that fear message is effective in promoting anti-smoking advertising. The result is consistent with the findings of Malaysia consumer group "fear no longer works when it comes to curbing smoking". This is because the students become immune to these types of message in anti-smoking campaign (The Star, 2005). Meanwhile, in Singapore (Shazana Shahwan, Restria Fauziana, Pratika Satghare, Janhavi Vaingankar, Louisa Picco, Siow Ann Chong, Mythily Subramaniam, 2019) a research regarding to the effectiveness of anti-smoking advertisements also revealed that fear messages were not effective anymore especially to youth community and neither humour messages were. According to the research which was carried out in Malaysia, humour messages found to be effective in anti-smoking advertisements.

Table 3 : The Most Preferred Social Medias For Effective Anti-Smoking Advertisement

Medium	Freq.	Percentage (%)	Rank
Internet	221	12.45	2
Facebook	152	8.57	7
Twitter	120	6.76	10
Instagram	186	10.48	4
Cinema	123	6.93	9
Posters	157	8.85	6
Billboard	95	5.36	11
Television	229	12.90	1
Magazine	138	7.78	8
Radio	162	9.13	5
Newspaper	191	10.77	3

Table 3 shows the most effective medium for anti-smoking was Television (229) followed by Internet (221). Meanwhile, the least effective medium was Billboard (95). Billboards are the least effective medium because there are less anti-smoking advertisements being advertised on billboards. However, study in Europe (Sarah O. Nogueira, Ann McNeill, Marcela Fu, Christina N. Kyriakos, Ute Mons, Esteve Fernández, Witold A. Zatoński, Antígona C. Trofor, Tibor Demjén, Yannis Tountas, Krzysztof Przewoźniak, Anne C. K. Quah, Geoffrey T. Fong, Sara C. Hitchman, Constantine I. Vardavas, 2018) revealed television was the most effective anti-smoking advertisements media and also had the highest percentage of participants noticing anti-smoking advertisements which was (28.6%) in Poland. On the other hand, social media (8.5%) was the least effective media in Poland.

Table 4 : The Effectiveness Of Anti-Smoking Advertisements

QUESTIONS	MEAN	STANDARD DEVIATION
1) Did the advertisements affect your smoking behaviour?	2.18	1.569
2) Was the advertisement relevant to you and your life?	1.77	1.580
3) Did the advertisements provide new information to you?	2.80	1.274
4) Did you persuade others to quit smoking?	2.45	1.367
5) Did the advertisements make you feel concerned about the effects of smoking on your health?	2.91	1.340
6) Did you attempt to quit smoking?	2.60	1.550
7) Did the advertisements urge you to quit smoking?	2.52	1.493
8) Did the advertisements make you feel like you are harming yourself?	2.46	1.508
9) Did you find any alternatives to quit smoking?	2.46	1.562

From Table 4, the mean for the effectiveness of anti-smoking advertisements to smoking behaviour and relevancy of advertisement to you and your life were close to 2.00. However, the new information provided by anti-smoking advertisement and the feeling of concern by advertisements about the effects of smoking on health were close to 3.00. Persuasion of quitting smoking to others, attempt of quitting smoking, the urge of quitting smoking by advertisements, the feeling of harming yourself due to the advertisements and alternatives to quit smoking were close to 2.50. Meanwhile a study in Europe (Sarah O. Nogueira, et. al) revealed participants in Romania has the highest percentage (27%) reported for quitting attempts. From the table, we can conclude that the students disagreed that the anti-smoking advertisements were relevant to them and their lives (1.77). Based on our observation, most of the students were non-smokers, so it was irrelevant to them. In addition, the students agreed that the anti-smoking advertisements made them feel concerned about the effects of smoking on their health (2.91) because it was proven all around the world that smoking is dangerous to their health.

CONCLUSION

The survey concluded that the students' perceptions on anti-smoking advertisements were not effective. Television was recognized as the most effective medium in publicizing anti-smoking advertisements. The anti-smoking advertisements were irrelevant to the students' lives.

RECOMMENDATIONS

The findings of the study assist the Malaysia government to develop more effective anti-smoking advertisements and messages in future. The government could take more effective strategies such as to use televisions, social network, newspapers as the main medium to promote the anti-smoking advertisement. Displaying the anti-smoking messages should be more focused on educating especially the primary and secondary school students instead of just informing the targeted audience.

REFERENCES

Websites

1. Belch, E. G., & Belch, A. M. (2007). Advertising and promoting: an integrated marketing communications perspective (7th ed.). McGraw-Hill: New York.
2. Borland R, Balmford J Understanding how mass media campaigns impact on smokers *Tobacco Control* 2003;12:ii45-ii52.
3. Brown A, Moodie C: Adolescents' Perceptions of Tobacco Control Measures in the United Kingdom. *Health PromotPract.* 2010
4. Dahlen, M., Murray, M., & Nordenstam, S. (2004). An empirical study of perceptions of implicit meanings in world wide advertisement versus print advertisements. *Journal of Marketing Communications*, 10(1), 35–47.
<http://dx.doi.org/10.1080/1352726042000177391>
5. Durkin S, Brennan E, Wakefield M Mass media campaigns to promote smoking cessation among adults: an integrative review *Tobacco Control* 2012;21:127-138.
6. Edwards CA, Harris WC, Cook DR, et al Out of the Smokescreen: does an anti-smoking advertisement affect young women's perception of smoking in movies and their intention to smoke? *Tobacco Control* 2004;13:277-282.
7. Fong GT, Hammond D, Hitchman SC: The impact of pictures on the effectiveness of tobacco warnings. *Bull World Health Organ.* 2009, 87 (8): 640-643.
10.2471/BLT.09.069575.
8. Hyland, A., Wakefield, M., Higbee, C. Szczyepka, G., & Cummings, K. M. (2005). Anti-tobacco television advertising and indicators of smoking cessation in adults: a cohort study. *Health Education Research*, 21(2), 296-302.
9. Hogg, K. M., & Garrow, J. (2003). Gender, identity and the consumption of advertising. *Qualitative Market Research: An International Journal*, 6(3), 166–174.
10. Hong, Y., Soh, C., Khan, N., Abdullah, M., & The, B. (2013). Effectiveness of Anti-Smoking Advertising: The Roles of Message and Media. *International Journal of Business and Management*, 8 (19), 55-62.
11. Kim, Y. J. (2006). The role of regulatory focus in message framing in anti-smoking advertisement for adolescents. *Journal of Advertising*, 35(1), 143-151
12. Li-Ling Huang, Daniela B Friedman, Feng-Chang Lin, James F Thrasher, Which types of anti-smoking television advertisements work better in Taiwan?, *Health Promotion International*, Volume 33, Issue 3, June 2018, Pages 545–555, <https://doi.org/10.1093/heapro/daw085>
13. Looi, E. (2005) Anti-smoking fear tactic has failed, The Star Online. Retrieved August 26, 2005, from <https://www.thestar.com.my/news/nation/2005/08/26/antismoking-fear-tactic-has-failed/>
14. Metha, A. (2000). Advertising attitudes and advertising effectiveness. *Journal of Advertising Research*

15. Miller, C., Foubert, B., Reardon, J., & Vida, I. (2006). Teenagers' response to self-and-other-directed anti-smoking messages. *International Journal of Market Research*, 49(4), 515-533.
16. Netemeyer, G. R., Andrews, C. J., & Burton, S. (2005). Effects of anti-smoking advertising-based beliefs on adult smokers' consideration of quitting. *American Journal of Public Health*, 95(6), 1062–1066.
<http://dx.doi.org/10.2105/AJPH.2004.050195>
17. Nogueira, S. O., McNeill, A., Fu, M., Kyriakos, C. N., Mons, U., Fernández, E. ... consortium*, O. B. O. T. E. (2018). Impact of anti-smoking advertising on health-risk knowledge and quit attempts across 6 European countries from the EUREST-PLUS ITC Europe Survey. *Tobacco Induced Diseases*, 16(2), 5.
<https://doi.org/10.18332/tid/96251>
18. Preventing tobacco use among youth and young adults. A report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2012
(<http://www.surgeongeneral.gov/library/reports/preventing-youth-tobacco-use/full-report.pdf>, accessed 31 August 2016).
19. Shahwan S, Fauziana R, Satghare P, *et al*Qualitative study of Singaporean youths' perception of antismoking campaigns: what works and what does not *Tobacco Control* 2016;25:e101-e106.
20. Siegel, M., & Biener, L. (2000). The impact of an antismoking media campaign on progression to established smoking: results of a longitudinal youth study. *American journal of public health*, 90(3), 380–386. doi:10.2105/ajph.90.3.380
21. Siegel M. Mass Media Antismoking Campaigns: A Powerful Tool for Health Promotion. *Ann Intern Med*.1998;129:128–132. doi: <https://doi.org/10.7326/0003-4819-129-2-199807150-00013>
22. Smith, H. K. & Stutts, A. M. (2006). The influence of individual factors on the effectiveness of content in anti-smoking advertisements aimed at adolescents. *The Journal of Consumer Affairs*, 40(12), 261–293. <http://dx.doi.org/10.1111/j.1745-6606.2006.00058.x>
23. Tan, S. C. (2013). Stop Smoking !. Archives / The Star Online. Retrieved October 26, 2014, from <http://www.thestar.com.my>
24. The International Tobacco Control Policy Evaluation Project, ITC Malaysia National Report 2012, <http://www.itcproject.org>
25. University of Georgia. (2007, July 20). Why Some Anti-smoking Ads Succeed And Others Backfire. *ScienceDaily*. Retrieved November 14, 2019 from www.sciencedaily.com/releases/2007/07/070719170315.htm
26. University of Illinois at Chicago. (2012, April 19). Anti-tobacco TV ads help adults stop smoking, study finds. *ScienceDaily*. Retrieved November 14, 2019 from www.sciencedaily.com/releases/2012/04/120419132503.htm
27. US Department of Health and Human Services, *Reducing the Health Consequences of Smoking: 25 Years of Progress: A Report of the Surgeon General, 1989*. Rockville, Md Centers for Disease Control, Office on Smoking and Health 1989;DHHS publication CDC 89-8411.
28. Wakefield, M., Flay, B., Nichter, M., & Giovino, G. (2003). Role of the media in influencing trajectories of youth smoking. *Society for the Study of Addiction to Alcohol & other Drugs*, 98(1), 79–103. <http://dx.doi.org/10.1046/j.1360-0443.98.s1.6.x>

29. White V, Webster B, Wakefield M: Do graphic health warning labels have an impact on adolescents' smoking-related beliefs and behaviours?. *Addiction*. 2008, 103 (9): 1562-1571. [10.1111/j.1360-0443.2008.02294.x](https://doi.org/10.1111/j.1360-0443.2008.02294.x).
30. WHO report on the global tobacco epidemic, 2013. Enforcing bans on tobacco advertising, promotion and sponsorship. Geneva: World Health Organization; 2013 (http://apps.who.int/iris/bitstream/10665/85380/1/9789241505871_eng.pdf?ua=1, accessed 31 August 2016).
31. Wolburg, M. J. (2008). Smoking cessation: why do smokers fail? *Journal of Consumer Marketing*, 25(2), 72–73. <http://dx.doi.org/10.1108/07363760810858800>
32. Zaidi, S.M., Bikak, A.L., Shaheryar, A. *et al*. Perceptions of anti-smoking messages amongst high school students in Pakistan. *BMC Public Health* 11, 117 (2011) doi:10.1186/1471-2458-11-117
33. Zawahir, S., Omar, M., Awang, R., Yong, H. H., Borland, R., Sirirassamee, B., ... Hammond, D. (2013). Effectiveness of antismoking media messages and education among adolescents in Malaysia and Thailand: findings from the international tobacco control southeast Asia project. *Nicotine & tobacco research : official journal of the Society for Research on Nicotine and Tobacco*, 15(2), 482–491. doi:10.1093/ntr/nts161