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#### Reducing Smoking Behavior in the Middle-East: Effectiveness of Anti-Smoking Message Themes

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#### Introduction

- Shisha or hookah smoking has been part of the daily life of Middle Eastern people since its origination from India/ancient Persia (American Lung Association 2009).
- The introduction of modern cigarettes in recent times have added to the anxiety of the governments in this region because of the health, social and economic costs associated with smoking, leading to many anti-smoking campaigns in the Middle East (ME)
- However, there is a gap of knowledge on the effectiveness of advertising (message) theme in anti-smoking campaign among the populace in the Middle-East countries.

This study investigates:

- The effectiveness of fear-related (disease and death) and social disapproval themes in reducing smoking tendencies among non-smokers in ME.
- The effectiveness of fear-related (disease and death) and social disapproval theme in reducing smoking tendencies among smokers in ME.

The ME refers to residents of GCC's member states including expatriates (non-GCC nationalities).

#### Hypothesis development

- In general, message themes in anti-smoking campaigns or advertisements can be classified as either fear-related (disease and death) or social disapproval-related (Uusitalo & Niemela-Nyrhinen 2008)
- Fear-related messages not effective among smokers (Farrelly et al. 2002)
- Social disapproval theme gaining traction among smokers who have children (Netemeyer et al. 2005); and among those non-smoking youth (Pechmann & Ratneshwar 1994)

This study proposed:

- H1:Messages related to fear-related (disease and death) theme is effective in reducing smoking behavior among the non-smokers in ME countries.
- H2: Messages related to fear-related (death) theme is effective in reducing smoking behavior among the smokers in ME countries.
- H3: Messages related to social disapproval theme is effective in reducing smoking behavior among the non-smokers in ME countries.
- H4: Messages related to social disapproval theme is effective in reducing smoking behavior among the smokers in ME countries.

## Methodology

- Data was collected from university students at six major cities of the GCC member states, namely: Manama (Bahrain), Kuwait City (Kuwait), Muscat (Oman), Doha (Qatar), Riyadh (Saudi Arabia), and Dubai (UAE)
- Semi-structured interview was utilised where respondents were initially presented with two anti-smoking advertisements, namely: *disease and death theme*; and *social disapproval theme* before being asked to response to a semi-structured questionnaire
- Overall, 2000 surveys were distributed but only 1206 questionnaire were returned. Of these, 38% are females while 63% are smokers. The composition of surveyee's nationalities is shown in Table 1.

| Table 1: Composition | of nationalities of | sample population |
|----------------------|---------------------|-------------------|
|----------------------|---------------------|-------------------|

| Nationalities                       | n=1206 | %     |
|-------------------------------------|--------|-------|
| Emirati                             | 147    | 12.18 |
| Kuwaiti                             | 120    | 9.95  |
| Bahraini                            | 86     | 7.13  |
| Qatari                              | 81     | 6.71  |
| Omani                               | 95     | 7.87  |
| Saudi                               | 67     | 5.00  |
| Expatriates (non-GCC nationalities) | 610    | 50.58 |

### Analysis

#### Table 2: Reasons for smoking and non-smoking

| Category   | N=1206    | Reasons (%)                                 |  |
|------------|-----------|---|--|
| Smoker     | 760 (63%) | Socializing= 26%                            |  |
|            |           | Peer influence= 20.5%                       |  |
|            |           | Finding hard to quit= 16%                   |  |
|            |           | For relieving stress= 13.8%                 |  |
|            |           | Want to look cool = 7.7%                    |  |
|            |           | Others= 16%                                 |  |
| Non-smoker | 303       | Thinks that smoking is bad for health = 41% |  |
|            |           | Dissuaded by parents= 15%                   |  |
|            |           | Dislike cigarette smells= 12 %              |  |
|            |           | Need substantial money to buy= 7.5%         |  |
|            |           | Does not think it is cool to smoke = 6%     |  |
|            |           | Others= 28.5                                |  |
| Not-sure   | 143       |   |  |

- Multivariate analysis of variance using SPSS v.21 revealed gender and nationalities have no gnificant impact on the effectiveness of fear-related and social disapproval themes in reducing smoking behaviour at the 5% level.
- Respondents' classification as smokers and non-smokers, appear to impact on the perceived effectiveness of anti-smoking message theme (Wilks' lambda=0.701, F=4.201, p=0.034). The 'tests of between-subject effects' revealed the 'non-smokers' variable recorded higher score (mean=4.33) than smokers (mean=2.39) on the perceived effectiveness of fear-related anti-smoking theme. There is no similar indication with the social disapproval theme.
- Post-Hoc test (Bonferroni) results were presented in Table 3.

# Analysis

#### Table 3: Post-Hoc statistics

| Multiple Comparisons                 |             |             |                          |           |       |  |  |
|--------------------------------------|-------------|-------------|--------------------------|-----------|-------|--|--|
| Bonferroni                           |             |             |                          |           |       |  |  |
| Dependent Value                      | (I) Q3      | (J) Q3      | Mean Difference<br>(I-J) | STD.Error | Sig.  |  |  |
| Fear related (disease & death) theme | smokers     | non-smokers | -1.940*                  | 0.217     | 0.000 |  |  |
|                                      |             | not sure    | -1.220*                  | 0.345     | 0.000 |  |  |
|                                      | non-smokers | smokers     | 1.940*                   | 0.217     | 0.000 |  |  |
|                                      |             | not sure    | 0.310                    | 0.316     | 1.000 |  |  |
|                                      | not sure    | smokers     | 1.220*                   | 0.345     | 0.000 |  |  |
|                                      |             | non-smokers | -0.310                   | 0.316     | 1.000 |  |  |
| social-disapproval theme             | smokers     | non-smokers | -0.720                   | 0.202     | 0.000 |  |  |
|                                      |             | not sure    | -0.730                   | 0.348     | 0.002 |  |  |
|                                      | non-smokers | smokers     | 0.720                    | 0.202     | 0.000 |  |  |
|                                      |             | not sure    | 0.620                    | 0.320     | 1.000 |  |  |
|                                      | not sure    | smokers     | 0.730                    | 0.348     | 0.002 |  |  |
|                                      |             | non-smokers | -0.620                   | 0.320     | 1.000 |  |  |

\*The mean difference is significant at the 0.05 level.

#### Findings & Conclusion

- The result of this study only supported *Hypothesis 1: Messages related to fearrelated (disease and death) theme is effective in reducing smoking behavior among the non-smokers in ME countries.* This indicated that fear-related antismoking messages could be a deterrent factor to smoking behavior among nonsmokers
- Fear-related anti-smoking messages has no significant impact on smokers (Hypothesis 2 not supported).
- The study also indicated that social disapproval themes are not effective in reducing smoking behaviour among both non-smokers and smokers (hypothesis 3 and 4 not supported). This observation could also be explained that smoking is viewed as socializing activities (one of the main reason for smoking as shown in Table 2) for building friendship and communal bonds.