Introduction

Tobacco use is one of the leading causes of preventable death across the world today and the smoking rates among men in the Arab world are amongst the highest in the world. Smoking of dokha, a traditional Arab tobacco is common in some of the Middle East countries such as the United Arab Emirates and Iran. This review focuses on the prevalence, pattern and health effects of dokha use in the Middle East. For this purpose an electronic search was performed in the following databases and websites: MEDLINE, EMBASE, Proquest and Google scholar up to December 2012. The search strategy was based on Internet search for the synonyms of dohka or midwakh. From the results of the review it emerged that younger people are the most common users of dokha. Hence effective outreach health education programs, targeting adolescents, especially school students before they take up the habit of smoking, may thus curb the emergence of the problem.

Literature Survey

The review described included all studies published in English language up to December 2012 from the Middle East countries, assessing dokha use, pattern of use and through a small smoking pipe called a midwakh. It was traditionally smoked by the bedouin and sailors in the UAE. The Midwakh bowl can be filled with 0.5 grams of dry tobacco (dokha) for each use. In general, dohka smokers would require two inhalations to burn the dry tobacco in the smoking pipe (midwakh). The prevalence and the health effects of dokha use have been documented in reports from the UAE (Nina Muslim, 2006; Shaikh et al., 2008; Jayakumary et al., 2010; Al-Houqani et al., 2012; Gulf news, 2012; Hajat et al., 2012). The WHO surveys (GSHS, GYTS and GTSS) carried out in the region have not reported the use of Dokha (WHO, 2002; 2009; 2010).

The dokha is available in variable strengths based on the effects produced, ranging from the mild (cold) to the strongest (extra hot). The ‘dokha’ variety providing the strongest ‘buzz’ is referred to as laf raas-the Arabic phrase for head spins. It is sold typically in small plastic pots that can last approximately a fortnight. The use of dokha is considered a popular trend among the adolescents, especially in the Middle East (CBS interactive, 2010).

The use of tobacco by the adolescents have been reported to affect the academic performance and influence their social life and health (Nakkash et al., 2011). This review focuses on the prevalence, pattern and health effects of dokha use in the Middle East.

Abstract

Background: Tobacco use is one of the leading causes of preventable death across the world today and the smoking rates among men in the Arab world are amongst the highest in the world. Smoking of dokha, a traditional Arab tobacco is common in some of the Middle East countries such as the United Arab Emirates and Iran. This review focuses on the prevalence, pattern and health effects of dokha use in the Middle East. For this purpose an electronic search was performed in the following databases and websites: MEDLINE, EMBASE, Proquest and Google scholar up to December 2012. The search strategy was based on Internet search for the synonyms of dohka or midwakh. From the results of the review it emerged that younger people are the most common users of dokha. Hence effective outreach health education programs, targeting adolescents, especially school students before they take up the habit of smoking, may thus curb the emergence of the problem.

Keywords: Dokha - Middle-east - tobacco - midwak - prevalence - prevention

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subsequently become a lifelong habit and may also involve a trend. This habit of dokha use starting early in life may attract younger generation, probably due to the popular nature of this form of tobacco use. An unpublished survey among school students have shown that the dokha use among the expatriate students is more than the locals (Al-Houqani et al., 2012) observed dokha as the second most common form of tobacco smoking among the Emirati population studied, with an average use of dokha of 12 times/day and Jayakumary et al. reported an average use of 7-10 per day in 16.4% of the dokha users. Another concern with this slowly emerging form of tobacco use is the likelihood of the spread of this form of tobacco smoking to other countries in the region and other parts of the world. An unpublished survey among school students have shown that the dokha use among the expatriate students from European, British and other western nationalities (Gulf news, 2012). A similar rapid spread of use of water pipes in the Gulf region has been documented in previous literature (Akl et al., 2011; Nakkash et al., 2011).

Physiological Effects

Shaikh et al observed that the acute effects of smoking dokha on the cardio-respiratory systems included significant increase in systolic blood pressure, heart rate and respiratory rate similar to those produced by the other forms of smoking. The main constituent alkaloid in all forms of tobacco including dokha is nicotine, which is responsible for the addictive effect. It stimulates cardiac contractility and constriction of the blood vessels, causing an acute temporary rise of heart rate and arterial blood pressure after a smoking session. The results of these reports add to the evidence that dokha use is not free from harmful effects on the various organ systems as incorrectly perceived by most users. The lack of awareness of the nicotine content and the associated effects of dokha use could be the reason underlying the preference of dokha among the adolescents (Al-Damegh et al., 2004). Hence, the anti-smoking/ anti-tobacco campaigns must address the ill effects of this form of smoking as well.

Conclusions

From the observations of the review, the younger people were noted to be the most common users of dokha.
Hence effective outreach health education programs, targeting adolescents especially the school students before they take up the habit of smoking may curb the problem spreading. Active involvement of the teachers and parents in imparting awareness among their children of the ill effects can help them build their future free of substance use. The increasing use of internet among the youth could effectively be harnessed as a source of information regarding the negative effects of all forms of tobacco including dokha.

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References

Al-Damegh SA, Saleh MA, Al-Alli MA, Al-Hoqail IA (2004). Cigarette smoking behavior among male secondary school students in the Central region of Saudi Arabia. *Saudi Med J, 25*, 215-9.

Al-Houqani M, Ali R, Hajat C (2012). Tobacco smoking using midwakh is an emerging health problem - evidence from a large cross-sectional survey in the United Arab Emirates. *PLoS ONE, 7*, 39189.

Al-Mohamed HI, Amin TT (2010). Pattern and prevalence of smoking among students at King Faisal University, Al Hassa, Saudi Arabia. *East Mediterr Health J, 16*, 56-64.

Aki EA, Gunukula SK, Aleem S, et al (2011). The prevalence of waterpipe tobacco smoking among the general and specific populations: a systematic review. *BMC Public Health, 11*, 244.

CBS Interactive [Online]. Midwakh: (2010) update. Available from: URL: http://www.search.com/reference/Midwakh. Accessed on 3rd October 2012.

Doll R, Peto R, Boreham J, Sutherland I (2004). Mortality in relation to smoking:50 years’ observations on male British doctors. *BMJ, 328*, 1519.

Freund KM, Belanger AJ, D’Agostino RB, Kannel WB (1993). The health risks of smoking. The Framingham Study: 34 years of follow-up. *Ann Epidemiol, 3*, 417-24.

Hajat C, Harrison O, Al Siksek Z (2012). Weqaya: a population-wide cardiovascular screening program in Abu Dhabi, United arab emirates. *Am J Public Health, 102*, 909-14.

Gulf News, June (24, 2012) [Online]. Dubai’s teenagers take to ‘dokha’ -. Available from: URL: http://gulfnews.com/news/gulf/uae/education/dubai-s-teens-take-to-dokha-1.1039067. Accessed on 21st December 2012.

Jayakumary M, Jayadevan S, Ranade AV, Mathew E, (2010). Prevalence and pattern of dokha use among medical and allied health students in Ajman, United Arab Emirates. *Asian Pac J Cancer Prev, 11*, 1547-9.

Mandiil A, Bin Saeed A, Ahmad S, et al (2010). Smoking among university students: a gender analysis. *J Infect Public Health, 3*, 179-87.

MPOWER package, (2011). WHO report on the global tobacco epidemic. Available from: URL: http://www.who.int/chp/gshs/en/. Accessed on 20th December 2012.

Nakash RT, Khalil J, Afifi RA (2011). The rise in narghile (shisha, hookah) waterpipe tobacco smoking: A qualitative study of perceptions of smokers and non smokers. *BMC Public Health, 11*, 315.

Nina Muslim. Gulf news: Teenagers resort to Arabic pipe for a high. Teenagers resort to Arabic pipe for a high. 2006. Available from: URL: http://gulfnews.com/news/gulf/uae/general/teenagers-resort-to-arabic-pipe-for-a-high-1.235759. Accessed on 20th December 2012.

Shaikh RB, Vijayaraghavan N, Sulaiman AS, et al (2008). The acute effects of Waterpipe smoking on the cardiovascular and respiratory systems. *J Prev Med Hyg, 49*, 101-7.

WHO Tobacco Free Initiative (TFI) (2002) Global Youth Tobacco Survey (GYTS). Available from: URL: http://www.who.int/tobacco/surveillance/gyts/en/. Accessed on 20th December 2012.

WHO Tobacco Free Initiative (TFI) (2009) GATS (Global Adult Tobacco Survey). Available from: URL: http://www.who.int/tobacco/surveillance/gats/en/index.html. Accessed on 20th December 2012.

WHO [Online]. Fact sheet 2010-Available from: URL: http://www.who.int/mediacentre/factsheets/fs339/en/index.html. Accessed on 3rd October 2012.

WHO. Global school-based student health survey (GSHS). Global school based student health survey (GSHS). 2010. Available from: URL: http://www.who.int/chp/gshs/en/. Accessed on 20th December 2012.