MINI-REVIEW

Dokha: An Emerging Public Health Issue as a Form of Tobacco Smoking in the Middle East

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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 dokha 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

Introduction

Tobacco use is one of the leading causes of preventable death across the world today, with a mortality rate of 6 million people every year. The mortality associated with tobacco use is predicted to increase to 8 million per year by 2030 (WHO, 2011). Tobacco is one of the major risk factors for chronic diseases including cardiovascular disease, stroke, chronic respiratory diseases and cancers (Freund et al., 1993; Doll et al., 2004).

Cigarette smoking is among the most common types of tobacco consumed worldwide. However, other modes of consumption of tobacco include waterpipe smoking (shisha, hookah), dokha/midwakh, chewing tobacco and sniffing tobacco, the practices varying with the regions of the world (WHO, 2011).

Tobacco use in the Middle East has been increasing over the past 50 years and the smoking rates among men in the Arab world are amongst the highest in the world, with an estimated prevalence of up to 77% (WHO, 2011). Smoking is uncommon among women in the Arab world (Mandil et al., 2010). Smoking of shisha (water-pipe) is particularly common in Middle East (Maziak and Ward, 2004; Al-Mohamed and Amin, 2010) and the use of dohka is prevalent in some of the Arab countries such as the United Arab Emirates and Iran (WHO, 2010; Akl et al., 2011).

The word ‘dokha’ or ‘buzz’ is derived from the Arabic phrase ‘Laf Raas’ which means dizziness and is a regional tobacco mix of leaves, bark and herbs. Dokha is available in different strengths and flavours. It is smoked 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.

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...
subsequently become a lifelong habit and may also involve
the younger generation, probably due to the popular
dokha. These findings suggest that the dokha users are
that 11.5% of students below the age of 18 years smoked
et al. (2010); Shaikh et al., 2008). Jayakumary et al reported
19.6 (1.8) years and 21.29 (2.25) years (Jayakumary et
The mean age of the participants of the two studies from
the mean age of starting dokha use was 20.9 (6.7) years.
This finding is expected as more men than the females are
Looking at the gender-based prevalence, Al-Houqani
and Al-Houqani et al. (2012) reported that the overall prevalence rate of dokha use of 1.66%. Jayakumary et al. (2010) reported 11.5% of the university students had smoked dokha at some stage in the past.
Looking at the gender-based prevalence, Al-Houqani et al. (2012) reported 3.6% among males and Jayakumary et al. (2010) reported 30.4% of the males were dokha users. This finding is expected as more men than the females are commonly involved in smoking tobacco. Additionally, it is related to the cultural settings of the Middle East region.
According to Al-Houqani et al, the mean age of individuals smoking dokha was 30 (29.6-30.4) years and the mean age of starting dokha use was 20.9 (6.7) years. The mean age of the participants of the two studies from UAE reporting dokha use and its health effects were 19.6 (1.8) years and 21.29 (2.25) years (Jayakumary et al., 2010; Shaikh et al., 2008). Jayakumary et al reported that 11.5% of students below the age of 18 years smoked dokha. These findings suggest that the dokha users are the younger generation, probably due to the popular trend. This habit of dokha use starting early in life may subsequently become a lifelong habit and may also involve
the users in other substance use practices. There are
initiatives that had been undertaken in the region to ban
minors getting access to tobacco products, and emphasis
need to be laid on all forms of tobacco including dokha.
These studies provide evidence on the importance of
implementing anti-tobacco strategies and measures, with
special emphasis on primary prevention of smoking of
dokha among adolescents, and the adolescents need to be
educated of the health effects of dokha smoking.

Dokha is preferred among the youth due to the
availability of dokha in a variety of flavors, in different
pipe styles of the midwakh (smoking pipe) and at lower
cost in comparison to cigarettes. The most common
reason for use of dokha among university students as
reported by Shaikh et al. (2008) were strong sensation of
light-headedness, lack of odor, the small dose required to
satisfy nicotine craving, the absence of stain on lips, low
cost and view that it was less harmful than other forms
of tobacco. These ‘benefits’ seem attractive to youth with
limited access to money and more concerned with the
appearance, associated style quotient and the current trend.

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


