

Shisha guidance for GPs:

eliciting the hidden history

Waterpipe tobacco smoking (or 'shisha') is a 600-year old practice, commonly known as hookah, nargile, and hubble-bubble. It is a growing health concern of global significance, and published literature already points to an association with lung cancer, chronic lung disease, reduced birth weight, and oral disease.¹ Although traditionally perceived as being prevalent only in the Middle East and the Indian subcontinent, shisha is now endemic to much of the globe, including the metropolitan cities of the UK, where an estimated 8% of Birmingham university students are regular shisha smokers.

In a study by Jackson and Aveyard ($n=937$ students), 7.1% [48/637] of white responders were regular smokers, as were 10.1% [16/159] of Asian, 5.6% [2/36] of Chinese, 6.5% [3/46] of black, 31.3% [5/16] of Arab, and 20% [1/5] of other ethnic origin respondents, indicating that regular shisha smoking among young UK adults may be, at present day, a cross-cultural fad.²

DELIVERING A UNIFIED HEALTH MESSAGE

As its popularity continues to grow, especially among young adults, there is an urgent need for shisha to be better understood and acknowledged among healthcare professionals, especially within primary care consultations so that it can be incorporated into existing evidence-based tobacco control strategies. It is undermining to public health efforts if healthcare professionals remain silent on shisha and do not acknowledge it as injurious to health. Such an approach may well be perceived by shisha smokers as tacit approval, if not promotion, of shisha being a safe alternative to cigarettes.³

Shisha operates in an altogether unregulated industry, commonplace in cafes and restaurants. As yet, there is no legislation on the tobacco used in shisha beyond its prohibition indoors.⁴ Unlike cigarettes, which have tight controls on the quantity of tobacco that can be used, shisha tobacco companies have largely been unopposed in producing ambiguous content descriptors, such as '0.5% or 0.05% nicotine, 0% tar' and 'natural flavours'.⁵ Many shisha tobacco companies do not even display the tobacco content contained within and this gives credence to those who



consider it a safe alternative to cigarettes.⁵ Chemical analysis may be in its infancy, but emerging studies have already shown that there is sufficient toxicant exposure for healthcare professionals to take notice.⁶

However, unlike cigarettes, harm should not be focused merely on the chemicals used, as many dangers of shisha are inherent to the design. In an ordinary session of shisha smoking, the tobacco is not usually fully consumed.⁶ This has given rise to a phenomenon known as 'titration', where shisha users are able to titrate up and down the tobacco they wish to consume based on their smoking preference and level of nicotine addiction,⁷ simply by inhaling more deeply. Specifically, documented evidence of shisha smokers experiencing cravings and withdrawal symptoms have come to light,⁸ and shisha has been used both as a precursor to and a substitute for cigarettes.^{9,10}

TOXINS AND RISKS

A unique threat of carbon monoxide poisoning is an ever-present although frequently overlooked risk of shisha. Such poisoning presents with non-specific neurological complaints (headache, nausea,

dizziness) largely unseen in the cigarette literature.¹¹ Additionally, the shisha apparatus itself is open to abuse. Since the apparatus is usually self-assembled, alcohol and illegal drugs can be substituted in place of water and tobacco with relative ease.⁴ The flexibility to customise also contributes to the social experience of shisha and projected as glamorous, opposite to the attitude perceived towards cigarette smokers.⁹ Social networking sites today are replete with young people self-posting photographs of smoke rings emanating from their colourful and customised water pipe.

Analysis of the smoke aerosol of one 45-minute session of shisha smoking has yielded tar levels of 802 mg, nicotine levels of 3.0 mg, and carbon monoxide levels of 143 mg.¹² In direct comparison, shisha has a quantifiably larger magnitude of difference of 36.5 times more tar, 1.8 times more nicotine, and 8.4 times more carbon monoxide than a single cigarette.¹³ A single 55-minute session of shisha also produces over 400 times more cobalt, over 100 times more lead, and almost 60 times more nickel than one cigarette.^{8,14}

SUGGESTED APPROACH

Re-evaluate and re-educate

The lack of a unified health message about shisha from healthcare professionals may prove to be a significant hindrance to future aversion campaigns. It is therefore important for healthcare professionals to assess independently the perceived threats of shisha, and to educate themselves and their colleagues of its threats. At the very least, healthcare professionals ought to be aware that shisha is by no means a safe alternative to cigarettes.

Ask the 'Shisha Question'

Despite shisha being a form of tobacco consumption, it is not widely considered on par with cigarettes by the general public. Specifically asking about shisha during

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consultations may well uncover significant smoking exposure that is currently hidden in the community. Areas where shisha cafes are particularly prevalent may warrant the initiation of the 'Shisha Question', at the discretion of the healthcare professional. This will enable physicians to manage patients better and to advocate healthy lifestyles. Similar results were achieved when the contraceptive pill was separately categorised during drug history taking.¹⁵

Attempt to quantify shisha use

The independent danger that shisha poses warrants its own categorisation as a distinct threat to health. The complexity of its apparatus requires a separate calculation in the long term. However, while more robust studies are in process, healthcare professionals may wish to use a simple cigarette equivalence to quantify the threat in familiar terms (as with 'pack years'). The authors cautiously suggest an equivalence of 10 cigarettes as one shisha session, based on the fact that an average session lasts approximately 45 minutes.

Joining calls for more research

While well-designed studies to-date are unequivocal in their condemnation of shisha, there remains a need for high-quality trials so that an evidence-based public health program can be instituted.

Implications for QOF

The UK Quality and Outcomes Framework (QOF) rewards smoking cessation activity in primary care.¹⁶ The electronic medical record includes templates which prompt primary care clinicians to ask about cigarette smoking, or other tobacco use, and to provide advice to smokers. However, many shisha smokers do not believe they are smoking tobacco and so may not reveal their shisha use. The gross underestimation of tobacco users has implications for a general practice's QOF points but, more importantly, the opportunity to give smoking cessation advice is lost.

LIMITATIONS

We acknowledge that an equivalence of 10 cigarettes to one shisha session is somewhat imprecise, owing to the several limitations. Despite the growing body of evidence, the methodologies of some studies on shisha conducted are not as rigorous as that of cigarettes, resulting in a tenuous association of shisha's adverse health effects. Additionally, due to the wide variation in shisha smoking habits, even within a single session (such as, number of

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puffs taken, depth of each puff, sharing of the shisha pipe with peers, length of each smoking session), it is difficult to quantify accurately the duration and magnitude of an individual's exposure. However, despite these limitations, the evidence still provides an unequivocal objection to shisha. Healthcare professionals need to be aware of this potential threat.

FURTHER WORK

Better study designs are currently in process, and it would be logical for the conclusions of these studies to be made more readily available in the public domain. In addition, as other worldwide public health bodies continue to take notice of the shisha burden, it would be prudent for the UK to follow suit and look towards implementing awareness campaigns and measures aimed at prevention.

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Provenance

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