Shisha No Thanks: International perspectives on addressing the harms of waterpipe smoking

Research to Practice Forum hosted by SESLHD Multicultural Health Service, in partnership with South Eastern Sydney Research Collaboration Hub (SEaRCH) UNSW and the Cancer Institute NSW
28 May 2021

The harms of waterpipe smoking

- Tobacco is the only legal product sold on the market that when used exactly as the manufacturer intended, is likely to kill you. More than 7 million deaths annually from direct tobacco use, and 1.2 million deaths annually of non-smokers exposed to second-hand smoke. Smoking is the leading cause of death, illness, and impoverishment (World Health Organization, Tobacco Fact Sheet)
- Nicotine is an addictive psychomotor stimulant that is produced by the tobacco plant, that acts on dopamine and serotonin pathways.
- Difficult to compare waterpipe tobacco smoke with cigarette smoke – cigarettes are fairly standardised with the same design and similar amount of tobacco; whereas waterpipe systems comes in different shapes and forms, different types of charcoal, and tobacco mixtures available in a myriad of flavours
- A standardised waterpipe smoking session called the 'Beirut Method' was developed based on studies of use of waterpipe in cafes in Beirut, Lebanon (Shihadeh A 2003; Shihadeh A *et al* 2004)
- Using the standardised Beirut Method, the following comparisons between 1 waterpipe session and cigarettes were calculated *(Note: 2 types of smoke emitted from waterpipe – mainstream smoke inhaled by waterpipe user and sidestream smoke which can be inhaled by others in the environment)*

  In the mainstream smoke (waterpipe user):
  - **Benzo[a]pyrene**: 1 waterpipe session = 2 packs of cigarettes
    Classified by WHO as one of the most carcinogenic elements emitted from tobacco smoke
  - **Aldehydes:** 1 waterpipe session = 5 cigarettes
    2 types of aldehydes: 1) formaldehyde – a carcinogen; 2) acetaldehyde – has a synergistic role with nicotine in addiction
  - **Carbon monoxide:** 1 waterpipe session = 2 packs of cigarettes
  - **Tar:** 1 waterpipe session = 3 packs of cigarettes
  - **Nicotine:** 1 waterpipe session = 3 cigarettes
  - **Total particulate matter (fumes inhaled):** 1 waterpipe session = 7 packs of cigarettes

  In the sidestream smoke (inhaled by others in the vicinity):
  - **Benzo[a]pyrene:** 1 waterpipe session = 4 cigarettes

- Waterpipe smoking health risks: cancer (lung and oral cavity), heart disease and stroke, decreased lung function and chronic bronchitis, low birth weight in babies, increased risk of transmitting tuberculosis, herpes, Hepatitis A and other viruses, acute carbon monoxide poisoning and syncope, metabolic syndrome, anxiety and depression (El-Zaatari ZM *et al* 2015; Waziry, R *et al* 2017)
- Waterpipe second-hand smoke health effects: asthma exacerbation and ear infections in children, heart disease and lung cancer in adults who have never smoked, increased risk of lung cancer by 20-30% (in non-smokers/ never-smokers). There is no safe level of second-hand smoke exposure, and waterpipe smoking should never happen indoors (Kumar SR *et al* 2015)
- High prevalence of waterpipe smoking among youth in Lebanon, Jordan, and West Bank. This is extremely alarming, as the effects of carcinogens on developing tissues of young adults is far worse, and waterpipe smoking is associated with more than doubling of the odds of later initiation of cigarette smoking (Al Oweini D *et al* 2020)

Clinical perspectives for addressing waterpipe smoking

- Unique features of waterpipe smoking that make it different to other types of tobacco smoking: deeply embedded in the social life of smokers, smoking sessions last for one hour and involves sharing with friends and family members leading to high exposure to second-hand smokers, waterpipe smokers often do not perceive themselves as smokers so they don't seek smoking cessation services
- Waterpipe smoking dependence is multidimensional: physiological (waterpipe smoking delivers the dependence-producing drug nicotine), emotional (as a primary coping mechanism), behavioural (linked to special situations) and social (linked to outings and gatherings) → need for multidimensional interventions
- Nicotine dependence can be measured using the validated Lebanon Waterpipe Dependence Scale (Salameh P *et al* 2008)
- Waterpipe smoking cessation interventions:
    - **Pharmacological interventions:** Bupriprion plus behavioural counselling shown benefit in helping waterpipe smoking cessation. (Varenicline – not effective; Nicotine Replacement Therapy – lack of evidence). *More research of effectiveness of pharmacotherapies needed* (Dogar O *et al* 2014; Dogar O *et al* 2018)
    - **Behavioural counselling** is very effective at decreasing waterpipe smoking habits. Counselling can be in-person, telephone, and self-help materials. Sessions should be <30 minutes/session, and patients should receive ≥ four counselling sessions to be effective. *Further development of waterpipe-specific behavioural counselling needed to address multidimensional dependence.* (Asfar T *et al* 2014; Alzyoud S *et al* 2018)
- Waterpipe users' barriers to cessation: perception that it is less harmful, social acceptance (Salameh P *et al* 2008)
- Clinicians' barriers to provide adequate therapy: in some cultures 30% of physicians are waterpipe smokers, lack of training about addressing waterpipe, lack of high quality studies to recommend behavioural or pharmacological interventions (Akl EA *et al* 2013; Al Ghobain M *et al* 2018; Romani M *et al* 2020)
- There is a lack of evidence on waterpipe smoking cessation interventions, so tobacco policies should be implemented urgently to prevent its further global spread – prevention is the key

Public health perspectives to address waterpipe smoking

- WHO Framework Convention on Tobacco Control (FCTC) adopted in 2005, with Australia one of the signatories. Key policies in the FCTC: high taxes, smoke-free public places, bans on advertising and promotion (including at point of sale), mass media campaigns, graphic warnings on packaging
- MPOWER framework developed in partnership with the WHO - Monitor tobacco use and prevention policies, Protect people from tobacco smoke, Offer help to quit tobacco use, Warn about the dangers of tobacco, Enforce bans on tobacco advertising, promotion and sponsorship, Raise taxes on tobacco
- Need to consider the role of commercial interests behind waterpipe smoking (ref Article 5.3 of FCTC), including companies that sell these products, restaurants where people use these products, and cultural events where waterpipe products are used – they have opposing agendas to tobacco control, and will seek to maximise uptake of tobacco use, maintain continuing customers, and prevent erosion of smoking opportunities
- Potential areas for greater action in addressing waterpipe smoking:
    - Monitoring: currently the Australian National Drug Strategy Household Survey does ask about waterpipe use, but there needs to be more information on use in specific communities
    - Smoke-free public places: In NSW, smoking is permitted in venues that aren't serving food and are 25% un-enclosed, which has led to shisha bars being permitted
    - Laws on flavouring: many shisha promotions describe flavours. In NSW there is a law banning tobacco products with fruity or confectionary flavours that would appeal to youths, which should include waterpipe tobacco

- Advertising online and on social media: shisha is easily purchased via Facebook pages and online ads, which is in violation of the Australia's Tobacco Advertising Prohibition (TAP) Act and Facebook's policies that bans promotion of tobacco products
- Health warnings on packaging: no waterpipe-specific warnings have been developed
- Mass media campaigns: scope for innovative use of media to target this specific type of tobacco use

- Key purpose of interventions: a comprehensive approach to erode the social acceptability of waterpipe use
- Current challenges: availability and marketing of e-shisha or e-hookah pens (3rd generation vaping devices often promoted as safe and portable alternatives to shisha/hookah); tobacco industry trying to position themselves as part of the solution by coming up with alternative products, eg vaping products, heated tobacco, or shisha products

The *Shisha No Thanks* project

- *Shisha No Thanks* Project aims to raise awareness of the harms of waterpipe smoking in young people from Arabic speaking backgrounds and culturally diverse backgrounds
- Project objectives: increase awareness of harms in key partners, stakeholders, and community champions; increase culturally appropriate resources; and use resources to increase community awareness and conversation
- Project funded by Cancer Institute NSW, with partnerships between 3 local health districts, 1 lead community organisation, 20 other community organisations, 3 universities and 1 state-wide multicultural health service
- Guiding principles of project: working in partnership with stakeholders and community organisations, codesign and participatory approach, community engagement, culturally informed and respectful, evidence-based, responsiveness, further build the evidence base
- Codesign and participatory approach important as waterpipe smoking can be seen as a culturally sensitive topic in some communities. This involved workshops with community leaders and champions to develop resources and messaging
- Key findings from workshops for project messaging: '45 minutes = 100 cigarettes' resonated with all audiences; despite numerous names for waterpipe, 'shisha' was a name most understood by all groups; young people prefer use of everyday people in campaigns rather than celebrities; use short videos and social media tiles; focus on health and fitness and not strong negative graphics
- Campaign activities: campaign video (over 350,000 views), website containing info about harms of shisha, cessation support and campaign materials (3,300 visits), social media platforms to disseminate campaign messages, fact sheets, media engagement (274 media mentions), promotional merchandise, community events and community worker information sessions
- Online training module developed, targeted at community workers or people working with multicultural communities – can be accessed via Shisha No Thanks website
- Innovative SMS Community Panel approach used to evaluate the project with the aim of assessing changes in knowledge and attitudes, intentions to reduce waterpipe smoking and awareness of support services
  - Participants recruited through local community partner's channels to form a SMS Community Panel
  - SMS Community Panel were sent weekly SMS text messages with 1 survey question for 8 weeks before the project, and then the same questions were sent 9 months later towards the end of the project. Participants could receive questions in either English or Arabic, depending on preference.
  - Participants reimbursed for their time with e-gift cards that were sent via SMS
  - Community members were engaged in the codesign and translation of recruitment material and survey questions to ensure content was culturally informed and accurate
- Evaluation found that more people had seen, heard, or read something about the harms of shisha smoking after the project (67.5%) compared to before (45%). This result was consistent across all subgroups (gender, age, waterpipe smoking status)

- Minimal change in proportion of people who intended to reduce or quit shisha smoking before vs after the project. This is unsurprising as objective of the project was to raise awareness of the harms, whereas changes in behavioural intention would more likely require longer exposure to such messages and support through other interventions
- Sustained community engagement and integration with other intervention strategies will be required to ensure this translates into behavioural change and population health gains

Participant feedback

- The online forum was well attended with 68 participants
- Participants described the forum as informative and comprehensive in providing information about the harms of waterpipe smoking
- Participants expressed interest in related topics for future events, including vaping, and reducing tobacco use in vulnerable communities

Follow up actions

- Disseminate summary document to participants and others; make slides and videos of presentations available through the UNSW CPHCE website
- Disseminate information shared in forum about harms of waterpipe smoking to the general public via subsequent phases of the Shisha No Thanks project, including using social media

Presentations and Resources

- A video recording of the Research to Practice Forum is available at: https://cphce.unsw.edu.au/news-events/events/2021/06/shisha-no-thanks-online-forum-international-perspectives-addressing-harms
    - Chant, K. 2021 *Opening Address*
    - Saliba, N. 2021 *The science and evidence of waterpipe smoking*
    - Romani, M. 2021 *Clinicians' perspectives on waterpipe smoking cessation*
    - Freeman, B. 2021 *Lessons from public health tobacco control*
    - Karezi, D. 2021 *Shisha No Thanks: Co-design project to raise awareness of the harms of waterpipe smoking in young people*
    - El-Haddad N. & Chan L. 2021 *Shisha No Thanks: Campaign evaluation using innovative SMS panel*

- Shisha No Thanks project website containing evidence-based resources: www.shishanothanks.org.au

Summary prepared by Lilian Chan, Multicultural Health Service SESLHD