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Heena Nirmal, Kulsum Ibrahim & Rubina Khan

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Hooked on Shisha: A 5-Year Study on Oral Health Risks and Awareness Campaigns in Leicester

[1*]Heena Nirmal, [2]Kulsum Ibrahim, [3]Rubina Khan

[1] The White House Dental Surgery,
Leicester, East Midlands, UK

*heena.nirmal1@nhs.net

[2] The White House Dental Surgery,
Leicester, East Midlands, UK

[3]The White House Dental Surgery,
Leicester, East Midlands, UK

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Abstract

Shisha smoking, also known as waterpipe or hookah smoking, has become increasingly popular among young adults, with significant implications for oral health. This study investigates the effects of shisha smoking on oral health and evaluates the impact of a targeted oral health promotion campaign in Leicester, East Midlands, initiated in 2019. The campaign included large posters displayed in a dental practice and small flyers distributed at oral health promotion events and regularly to patients during their dental visits. A total of 30 young individuals were interviewed annually over a five-year period to assess changes in awareness and attitudes towards shisha smoking, with particular attention to the influence of the COVID-19 pandemic on shisha habits. The study findings underscore the effectiveness of the campaign in raising awareness but reveal limited success in influencing behavioural change.

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1. Introduction

Shisha smoking, commonly perceived as a safer alternative to cigarette smoking, is increasingly popular among young adults in the United Kingdom. This misconception contributes to significant health risks, especially concerning oral health, as shisha use exposes users to high levels of nicotine, tar, and carbon monoxide. In response to these risks, a dental practice in Leicester, East Midlands, launched a health promotion campaign in 2019, which included a large poster displayed in the practice and small informational flyers distributed to patients at oral health events and routine dental visits. This study analyses the effects of this campaign on awareness and behaviours related to shisha smoking over five years, with a focus on trends observed during the COVID-19 pandemic.

2. Literature Review

2.1 Health Risks of Shisha Smoking

Research highlights that regular shisha smoking has substantial adverse effects on oral health, including an increased risk of periodontal disease, tooth decay, and oral cancer. These risks stem from the prolonged exposure to nicotine and toxic chemicals present in shisha smoke, which is often inhaled over lengthy sessions (Eissenberg & Shihadeh, 2009). Studies also indicate that the nicotine and tar content in one shisha session can be equivalent to smoking multiple cigarettes, leading to potentially greater harm (Katurji et al., 2010).

2.2 Trends in Shisha Smoking Among Young Adults and the COVID-19 Impact

Shisha smoking has seen a rise in popularity among young adults, who may be attracted to the social and recreational aspects of shisha lounges. However, the COVID-19 pandemic disrupted these habits, as lockdowns and social distancing led to the closure of public shisha venues. Many young people continued to smoke shisha at home, a practice that often lacks regulatory oversight and thus increases health risks (Ben Taleb et al., 2021). This study examines whether these shifts influenced attitudes toward the risks of shisha use and whether pandemic restrictions had any lasting impact on smoking habits.

2.3 Oral Health Promotion Strategies Using Posters and Flyers

Health promotion through posters and flyers is a common method in dental practices to disseminate information and raise awareness. Visual aids, like posters, and take-home materials, like flyers, are cost-effective tools for promoting oral health messages. Effective poster campaigns can increase patient awareness and support public health goals (Freeman, 2012). The poster and flyers used in this study were strategically designed to highlight the dangers of shisha smoking on oral health and were targeted

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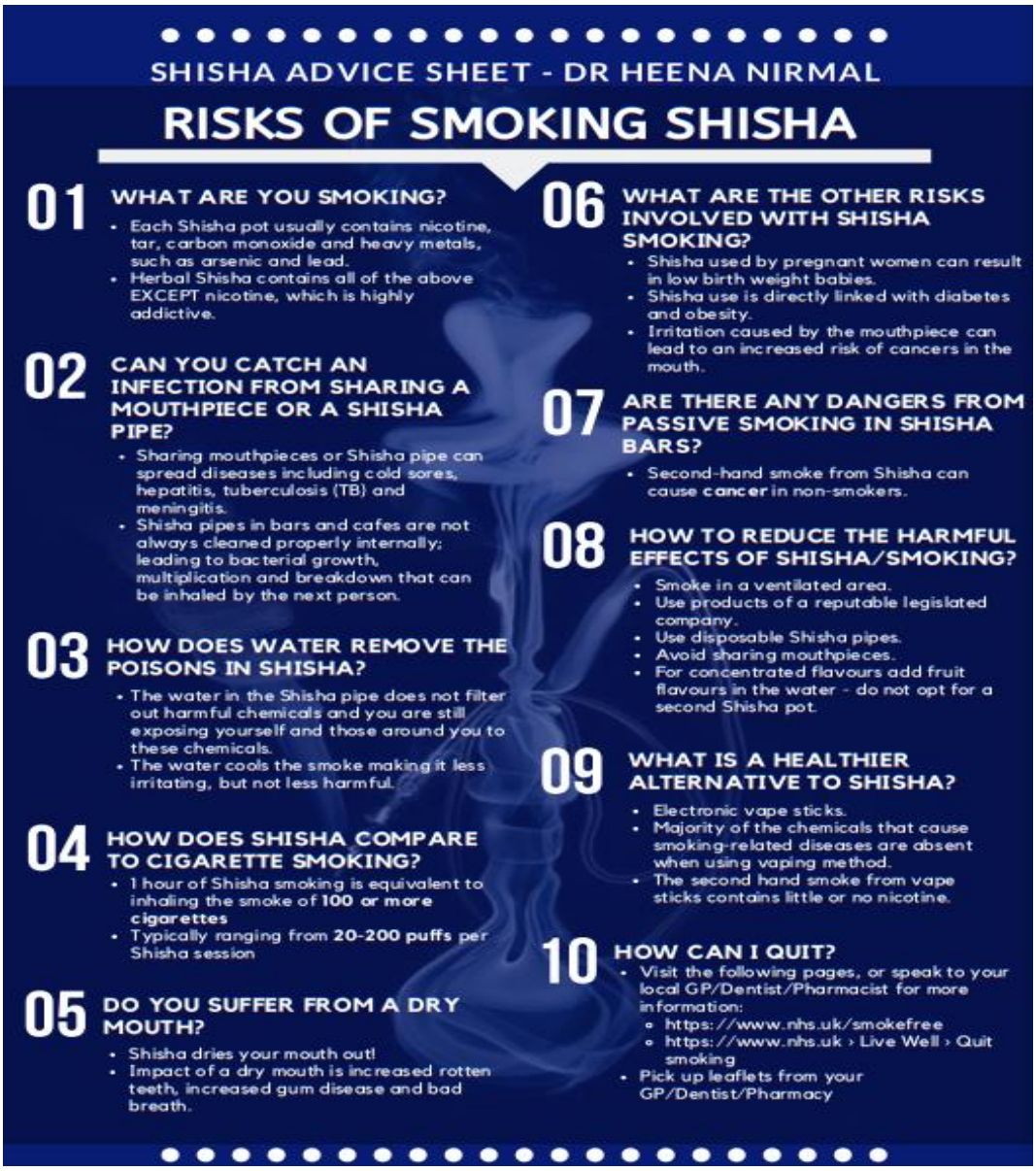
specifically at young adults. The poster created was made following group feedback within the practice and input from patients (figure 1).

Figure 1: Shisha advice sheet



3. Methodology

3.1 Study Design and Sample

This longitudinal, mixed-methods study evaluated the impact of a health promotion campaign on shisha smoking awareness and behaviours among young adults. A convenience sample of 30 regular patients aged 18–25 from a Leicester dental practice was selected, given the prevalence of shisha smoking in this group. Recruitment occurred in the practice, with informed consent obtained. Conducted from January 2019 to December 2023, the study received ethical approval from the principal dentists and adhered to data protection and participant rights protocols.

3.2 Data Collection

Annual structured interviews captured participants' awareness of health risks, smoking behaviours, and perceptions of campaign materials. Pre-tested questions ensured clarity and reliability, focusing on oral health risks, attitudes towards shisha, and recall of campaign messages. Interviews, conducted privately by trained researchers, minimised bias and ensured confidentiality.

Participants also completed annual questionnaires to provide quantitative data on smoking frequency, contexts, perceived risks, and exposure to related information. This quantitative data complemented the qualitative findings, offering a comprehensive analysis.

3.3 Campaign Materials and Distribution

The campaign began in early 2019, featuring a poster in the practice's waiting area outlining oral health risks of shisha smoking. Flyers summarising the poster's content were distributed during routine visits and oral health promotion events to reinforce messages (as shown in figure 1 above). Developed with dental health professionals and reviewed by a focus group of young adults, materials were updated as required to remain relevant and engaging. The flyers allowed patients to take the information home, reinforcing the message beyond the clinical setting.

3.4 Data Analysis

The qualitative data from the interviews were analysed through thematic analysis to identify trends in awareness, behaviours, and attitudes. Special attention was given to any changes in habits or perceptions during and after the COVID-19 pandemic restrictions.

3.5 Limitations

The absence of a control group limits attribution of changes solely to the campaign. Self-reported data may introduce recall bias, though annual data collection and structured formats mitigated this risk. Despite these limitations, the study provides valuable insights into the campaign's long-term effects.

3.6 Ethical Considerations

Ethical approval was obtained, and participants were informed about the study's purpose, procedures, and potential risks. Written consent was secured, and all data anonymised and securely stored. Findings are presented in aggregate to maintain confidentiality.

4. Results

4.1 Trends in Shisha Smoking and COVID-19 Impact

The study found that shisha smoking remained popular among the sample group, with 70% of participants reporting regular usage by 2023. During the COVID-19 pandemic, 40% of participants reduced their shisha usage due to restricted access to lounges. However, many resumed smoking once restrictions were lifted, with 80% of those who reduced their use during lockdowns returning to previous smoking levels by 2022 and some also making use of hookah pipes at home.

4.2 Awareness of Shisha-Related Oral Health Risks

Awareness of shisha's impact on oral health increased significantly over the five-year study period. In 2019, only 20% of participants were aware of the oral health risks associated with shisha. By 2023, this figure had increased to 65%, suggesting that the poster and flyer campaign contributed to heightened awareness among the participants. However, increased awareness did not correlate strongly with behaviour change.

4.3 Impact of Posters and Flyers on Behaviour Change

While the campaign effectively raised awareness, its influence on actual smoking behaviour was limited. Although 70% of participants acknowledged that the materials made them "more aware" of the risks, only 15% reported a reduction in their shisha use. Interview feedback revealed that, although participants valued the information, many perceived the health risks of shisha as less severe or less immediate than those associated with cigarette smoking. For many, shisha served as a preferred social activity, offering an alternative to alcohol consumption, which was not suitable for religious reasons for many questioned.

5. Discussion

The findings underscore the need for multi-faceted health promotion efforts. While the poster and flyer campaign were effective in increasing awareness, the materials alone were insufficient to drive substantial behavioural change. The COVID-19 pandemic temporarily altered shisha habits, with some participants smoking less due to restricted access to public lounges. However, this reduction proved temporary, with most participants returning to previous levels of shisha use as social restrictions eased, and some even adopting waterpipe use at home.

These findings align with previous studies, which suggest that awareness alone is not always sufficient to modify behaviours, particularly those with strong social or cultural associations. To increase effectiveness, future health promotion campaigns could consider integrating interactive elements, such as workshops or digital platforms, alongside printed materials (Freeman, 2012).

6. Conclusion

This study highlights the oral health risks associated with shisha smoking and evaluates the impact of a poster and flyer campaign on awareness and smoking behaviour among young adults in parts of Leicester. While the campaign successfully raised awareness, it had limited influence on reducing shisha smoking among participants. The findings indicate that oral health promotion strategies may benefit from incorporating more interactive or personalised interventions to effectively address entrenched social habits like shisha smoking.

The temporary behavioural changes observed during the COVID-19 pandemic further emphasise the social nature of shisha smoking among young adults, suggesting that any future campaigns should account for these dynamics. Ongoing education and tailored interventions are essential to reduce the prevalence of shisha smoking and its associated health risks.

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