

# Challenges in curbing illegal orthodontics: A qualitative study on dental enforcement officers in Malaysia

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*Background:* Illegal orthodontics is on the rise, with ‘fake’ braces being reported mainly in South-East Asia. Health concerns have been raised despite ongoing efforts to increase public awareness.

*Objectives:* To explore the perceptions of Dental Enforcement Officers from The Oral Health Legislation and Enforcement Section, Ministry of Health Malaysia regarding the challenges in managing complaints against ‘fake’ braces providers in Malaysia.

*Methods:* Three focus group discussions were conducted involving twelve Dental Enforcement Officers (DEOs) who have managed complaints regarding illegal orthodontic practices over the past two years. Participants were asked about their actions in response to complaints and their perceptions of the challenges faced during the incidents. Information collection was concluded once data saturation was achieved. The interviews were transcribed and thematically analysed using NVIVO software.

*Results:* The data identified six predominant themes which were: (1) A lack of resources; (2) Emotional strain on DEOs; (3) External support for illegal providers; (4) Difficulty in gathering information; (5) Complex planning and execution of raids; and (6) A lack of online regulation.

*Conclusion:* The management of ‘fake’ braces activities is complicated and requires DEOs to work closely with various authorities for a successful outcome. This study may offer some insight into ways of overcoming these challenges.

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## Introduction

Illegal dentistry is a global issue that presents in many different forms. According to a policy paper released by the FDI World Dental Federation, the

term illegal dentistry refers to “*Provision of any oral care by individuals or organizations not specifically trained, licensed, registered and regulated to do so as defined in the appropriate local or national legislation*”.<sup>1</sup> In countries like India and Trinidad, ‘street doctors’

without dental training and often in underserved areas, offer basic treatments such as extractions and dentures.<sup>2,3</sup> Illegal dentistry extends to qualified immigrant providers failing to meet host country regulations and dental personnel such as lab technicians and therapists exceeding their scope of practice.<sup>4</sup> These practices pose public health risks due to low-quality care.

In the past decade, illegal dentistry has shifted its focus from addressing basic oral health needs in deserving communities to becoming a profit-driven industry, offering aesthetic procedures like veneers and tooth whitening.<sup>5</sup> In orthodontics, a growing trend involves 'Do-It-Yourself' (DIY) or 'Direct-To-Consumer' (DTC) orthodontics, which is the direct sale of clear aligners to consumers. This trend has been observed in the United Kingdom, the United States, and Australia,<sup>6-8</sup> causing dental associations and councils to campaign against DIY aligners.<sup>9,10</sup> In Malaysia, illegal orthodontics in the form of 'Fake Braces' has emerged, with unqualified individuals providing fixed orthodontic appliances. Initially appearing in Southeast-Asia,<sup>11</sup> their use has now extended to the Far East and Middle Eastern countries.<sup>12,13</sup> The appliances are fitted in unsanitary conditions, leading to complications in the form of caries, gingivitis, tooth mobility, tooth loss, and even fatal infections.<sup>14</sup> Despite efforts to raise awareness, this unethical business remains a concern, particularly on social media.

In Malaysia, the Ministry of Health established the Oral Health Legislation and Enforcement Section in 2003 to manage all legislative and enforcement matters. This unit is responsible for addressing complaints related to illegal dental practices. Reports from the Ministry of Health Malaysia indicate that more than half of the annual complaints about illegal dentistry specifically involve fake braces, with 52 cases reported in 2021.<sup>15</sup> If convicted, perpetrators can face fines of up to RM300,000 and/or up to six years in jail. While the number of reported cases is gradually increasing each year, successful prosecutions remain limited. Hence the present study aimed to investigate the challenges faced by Dental Enforcement Officers (DEOs) in prosecuting fake braces providers.

## Materials and methods

This was a qualitative study using the grounded theory method during focus group discussions

(FGD). The study was registered with the National Medical Research Register, Ministry of Health Malaysia and ethical approval was obtained from the Medical Ethics Committee, Faculty of Dentistry, University of Malaya (DF CD2101/0001 (L) and from the Medical Research and Ethical Committee, Ministry of Health Malaysia (NMRR-20-3128-57032(IIR)). The COREQ checklist was used in reporting the methodology.<sup>16</sup>

### *Study participants*

DEOs from the Ministry of Health Malaysia who had managed complaints of illegal orthodontic practice over the past two years were invited to participate in the study. The number of participants was determined based on data saturation, in which no new insights or themes emerged following further interviews.

### *Recruitment and sampling*

Participants were identified based on a list provided by the Ministry of Health Malaysia. Purposive sampling was used to recruit DEOs who were serving in various states across the country to ensure the sample had adequate representation related to gender, age, duration of service and location of service. A total of 13 participants were contacted via 'WhatsApp' instant messaging but one participant was excluded from the study as he could not commit to the dates selected for the FGDs, leaving a total of 12 participants once data saturation was achieved.

### *Data collection*

Three FGDs were carried out in both English and the Malay languages using either Zoom or Google Meet virtual platforms. The FGDs were conducted involving four participants per session to ensure adequate audio connectivity. Semi-structured interview guides were used to prompt discussion (Table I). The guide was developed by the research team based on their knowledge of preliminary findings from another study involving clients of fake braces. The interviews were conducted either by one female dental public health specialist or one male orthodontic specialist (NAM and CJM) who had experience in conducting interviews and qualitative research. The interviews were carried out between

Table I. Interview guide

Question	Prompts
What do you know about fake braces?	Have you heard about fake braces?
How do you feel about fake braces?	Are you concerned about this trend?
What experience do you have with fake braces?	Have you come across any cases? What did you do?
Why do you think the public seek such treatment?	Do you think the patients are aware that it is illegal?
In your opinion, what are the short term and long term effects of fake braces on our community?	Will this trend have a positive or negative impact on orthodontics and the community?
What difficulties did you encounter when managing these cases?	Were patients receptive to your advice? Did you know how to manage these cases? How did you manage these cases?
What is your view about fake braces providers?	Are they usually male or female ? Age group? Do they know what is legal or what is not? What are their common responses/ excuses for providing this illegal service?
Do you have any suggestions to manage this alarming trend?	What would make it easier for you to manage these cases?

July 2021 and April 2022, with each session lasting between 60 and 80 min.

A Google Form was sent to the participants just prior to the interviews to obtain consent and demographic details. The participants were given a brief description of the aims and objectives of the study before being asked about their actions in response to complaints and their perceptions of the challenges faced

during the incidents. All interviews were recorded using the virtual platforms recording feature and a voice recorder for backup to ensure all words were captured. After the interviews, an honorarium was given to each participant as a token of appreciation.

Data collection was concluded once data saturation was achieved (i.e. no further themes were generated). Audio recordings were transcribed verbatim and copies of the transcribed interviews were shared with the participants to confirm their responses.

### *Data analysis*

Transcripts were coded and a thematic analysis was conducted using NVIVO software by two researchers (YK, ADB). All participants confirmed the accuracy of the transcripts and no further insight was provided following the interviews. The final themes were discussed, modified, and confirmed with the research team which involved an additional two researchers (CJM, NAM). All researchers were bilingual and familiar with both languages used. Only relevant Malay quotes used for data display were translated into English to facilitate the reader.

### *Results*

Twelve participants aged between 33 and 56 years of age were interviewed (seven females, five males). All participants were qualified officers with experience in the Oral Health Legislation and Enforcement Section, ranging from four to eleven years and served in various states across Malaysia. Participant demographics are summarised in Table II.

Data analysis revealed six predominant themes associated with the challenges of managing complaints against fake braces providers in Malaysia which were: (1) A lack of resources; (2) Emotional strain on DEOs; (3) External support for illegal providers; (4) Difficulty in gathering information; (5) Complex planning and execution of raids; and (6) A lack of online regulation (Figure 1).

### *Lack of resources*

A lack of resources was a recurring theme raised by most participants, especially related to manpower, training, and funding. Many participants described how DEOs had a wide job scope and were responsible

Table II. Participant demographics

FGD	Participant	Gender	Age	Enforcement experience	
				(years)	Enforcement unit (By State)
FGD 1	1	Female	41	4	Kuala Lumpur and Putrajaya
	2	Female	50	13	Perak
	3	Male	38	10	Pulau Pinang
	4	Male	43	9	Selangor
FGD 2	1	Male	34	4	Sarawak
	2	Male	37	5	Kuala Lumpur and Putrajaya
	3	Male	35	6	Perak
	4	Female	33	5	Pulau Pinang
FGD 3	1	Female	56	9	Negeri Sembilan
	2	Female	48	11	Kuala Lumpur and Putrajaya
	3	Female	36	9	Selangor
	4	Female	40	11	Terengganu

for all activities pertaining to legislation related to the practice of dentistry, and not just limited to illegal dentistry. This required DEOs to multitask, which limited the number of available officers to conduct thorough investigations and raids. Consequently, DEOs had to be selective in choosing complaints to be investigated further, prioritising complaints directly from victims and cases that would most likely have a larger impact or lead to a successful conviction. Participants often described how DEOs across states would have to assist each other to increase manpower, as one participant commented, *"I have been asked to assist in fake braces raiding cases in Pulau Pinang, Perak, Kedah, and other Northern states."* (Participant 4, FGD 1). Another participant said, *"...Sarawak is such a big state. We only have five enforcement officers in the whole of Sarawak. So, raids are expensive and logistically difficult to move from one place to another."* (Participant 1, FGD2). Investigations and raids were described as costly, and participants often seemed frustrated when describing the limitations in funding. Some participants admitted to using their own funds to support their investigations. Funding was also tied to a lack of training, as one participant expressed, *"It's very challenging actually... we are not trained to be enforcement (officers), we are dentists. So, we have to learn from scratch. Some of my colleagues are still*

*learning even after nine years as every case is unique."* (Participant 3, FGD 3).

### ***Emotional strain on enforcement officers***

DEOs also talked about their emotional stresses. Each case can take several months or years from initial complaint to prosecution, leaving DEOs emotionally drained. Unsuccessful raids or a lack of prosecution after months of extensive work often left DEOs lacking motivation. Furthermore, some perceived the lack of incentives as a demotivator for dental officers in taking up the challenging position of a DEO. One mentioned, *"... to be the enforcement officer you get nothing. Your safety is jeopardised, but you do not get any extra allowance... The young officers are not interested. A few of us furthered our studies in a Master of Enforcement Law degree to improve our knowledge and (to) benefit ourselves, but we did not get any extra allowance even with this."* (Participant 2, FG3)

DEOs also fear for their safety especially during raids. A participant described an incident in which, *"... Family members became aggressive, more aggressive than the (fake braces) provider... we were cursed, shouted at and all sorts."* (Participant 2, FGD1). One participant described DEOs as being vulnerable, as they were a small team, and were easily identified by

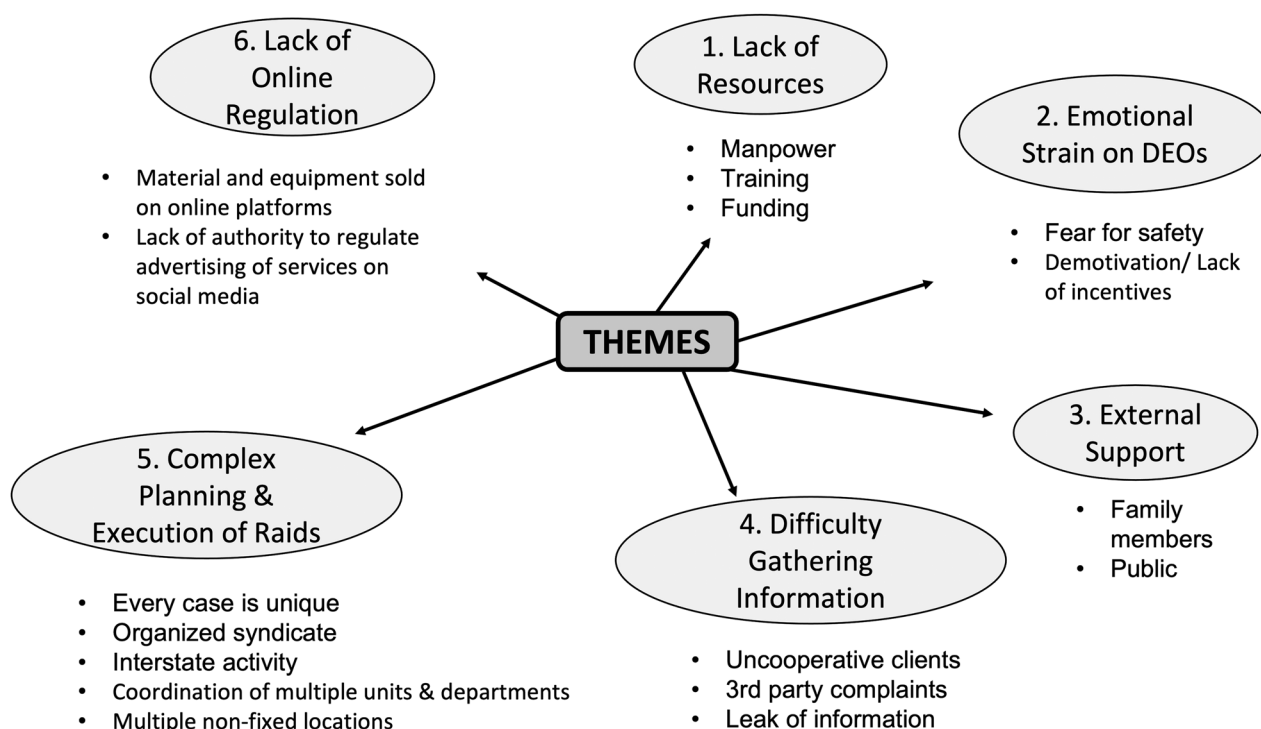


Figure 1. Six themes with corresponding codes highlighting challenges in managing fake braces.

individuals involved in illegal dentistry within the state. One participant related her personal experience, “I have been threatened. They know my name. They have pictures of my house, my car...” (Participant 2, FGD 2). She further explained how she reached a low point in her career when one of the offenders tried to be disruptive by accusing her of bribery. At one point, a police officer had to be assigned for her personal protection for a month. Conversely, one male participant described how he felt emotionally and mentally drained when a female offender was crying for hours during a raid and had to be consoled by him. His words were, “When you see a lady crying in front of you, like sitting down and crying... mentally it is quite hard to see someone like that.” (Participant 2, FGD 2).

### **External support for illegal providers**

Meanwhile, providers gain acceptance among family members as their illegal practices bring in substantial profit. One participant described an incident in which the provider who was raided was adamant that she was not guilty and was merely providing a much-needed service to the public. “What is most

alarming is that at first, they (fake braces providers) do not get family support, but since they are generating high income with the illegal orthodontics, in the end, they get the support. This is my experience with underaged school kids.” (Participant 1, FGD 1). Another participant added, “Not just family members, they also gain support from acquaintances and even the victims of their wrongdoing, as mentioned by another participant, “... they (fake braces victims) do not want to reveal details of the provider, just like in my case with the underaged provider, most of the clients are his/her friends. So, they won’t reveal the identity of the provider.” (Participant 2, FGD 1).

### **Difficulty gathering information**

Prior to conducting a raid, sufficient intelligence and information needs to be gathered during the investigation phase. Many participants described this stage as difficult and challenging but stressed its importance in determining a successful raid. Clients of fake braces providers were often not co-operative and refused to provide any useful information. Participants expressed their frustration when clients would conveniently forget important information



such as phone numbers or names. Furthermore, the majority of complaints were received from third parties complaining about fake braces marketing on online sites that were viewed and not from actual victims. A participant noted, *“So far, we have received many (complaints) ... informing us regarding Facebook pages advertising (fake braces), (but) we prioritise victims due to our limitation in manpower.”* (Participant 2, FGD3). When receiving complaints directly from victims, the team is more likely to gather useful information and to do this, DEOs rely heavily on middle persons to carry out undercover surveillance. However, with more people involved, there is a greater risk of information being leaked, and therefore jeopardising the raid. One participant explained, *“(We) had this very straightforward case during our initial investigation. It seemed simple and the location seemed easily accessible for the raid. But when we went there, there had been some leak of information. We do not know from where (sic). Basically, the provider knew we were coming. So that can be a challenge.”* (Participant 4, FGD1).

### **Complex planning and execution of raids**

The terms “unique” and “complex” were commonly used by participants to describe each complaint case. When dealing with the law, even simple cases can be complex. Strict procedures need to be followed to ensure a successful conviction. There is a further need to understand that fake braces provision is an organised syndicate and not an individual task. *“One of the trends now is that the person advertising the illegal activities, is not the provider, but an agent to look for clients. Some providers have more than one agent. The agents will set the appointment and get a commission. Sometimes there are multiple advertisements, but when we investigate, we find out that it is from the same person...”* (Participant 4, FGD1). Another participant mentioned, *“...there is someone who is like the mastermind who is training these people (providers). We cannot go to the mastermind because there’s no regulation in the act that says that we can prosecute that person (conducting training). We can only prosecute the person who provides the service. So, we prosecute one, another one mushrooms up, because we know the mastermind has not been caught.”* (Participant 1, FGD2).

Furthermore, these organised health criminals are offering interstate fake braces activities at multiple

non-fixed locations, which further complicates planning and co-ordination of enforcement units from various states. Some providers were described as delivering services within their client’s house, thus the address was forever changing. One participant explained, *“What if, the fake braces provider gives, let’s say location A, and my appointment is at 12pm. Then at 10am, she texts me again to say that the location has been changed from location A to location B. But we already got the warrant for location A. So that’s another hurdle for us.”* (Participant 3, FGD2).

The participants also discussed their collaboration with other organisations as their raids required co-ordination with multiple units and departments such as the police, immigration, and medical counterparts. The police were often engaged to ensure the safety of the raiding team whereas immigration officials were always needed when the involvement of foreigners was suspected. Occasionally dental technologists would be needed to dismantle dental chairs from the premise to provide evidence. *“So usually we go in with CKAPS (Private Medical Practice Control Branch), our medical counterparts, and sometimes we even bring our pharmaceutical counterparts. And then it’s a three-pronged attack. We prosecute them through the medical side, the dental side, and through the pharmacy side. So, it depends on which one they will get caught for, it could be all three.”* (Participant 1, FGD2).

### **Lack of online regulation**

A lack of online regulation was a recurring theme, with participants claiming it was fuelling the fake braces industry mainly through the sale of cheap orthodontic materials and equipment traded on e-commerce platforms, plus the advertising of fake braces on social media networking sites. Participants expressed their frustration as the control of online platforms was beyond their jurisdiction. As for regulating the social media marketing of illegal services, DEOs considered they lacked the authority to prosecute criminals. *“We don’t have any officers that are recognised and given authority to ban any accounts on social media”* (Participants 2, FGD2).

### **Discussion**

The present study explored the challenges faced by Dental Enforcement Officers (DEOs) in their attempts to control illegal health activities. The

interview findings revealed that DEOs encounter technical, operational, social, and legal challenges in addressing illegal orthodontic practices in Malaysia. Similar complexities have been reported in other countries when combatting illegal dental and medical practices.<sup>3,4</sup> Each type of illegal dental practice presents its own unique challenges. For example, in the United Kingdom and America, DIY aligners operate in a legal grey area because they are directly delivered to consumers, without physical interactions between suppliers and consumers, therefore making it challenging to establish illegal dental practices. Similarly, DIY braces or decorative braces in Saudi Arabia and the Philippines involve the sale of kits for self-fitting with 'over-the-counter' glue.<sup>17,18</sup>

In Malaysia, fake braces differ in that the provider physically attempts dental treatment on clients, potentially violating the Dental Act 2018<sup>19</sup> or by practising dentistry in an unlicensed premise under the Private Healthcare Facilities and Services Act 1998.<sup>20</sup> Successful convictions demand meticulous evidence collection. Complaints require extensive resources and skills for case building, raids, and prosecution. The dynamic nature of illegal activities, often involving interstate operations with last-minute location changes, hampers securing search warrants. Thailand reports a new *modus operandi* in which fake braces providers operate from cars, facilitating mobility and evading authorities.<sup>21</sup>

Participants emphasised the importance of collaboration between multiple agencies, including the Malaysian Ministry of Health, The Dental Council, Royal Police, Cyber Security Malaysia, Immigration and Customs Enforcement, Communications and Multimedia Commissions, and other professional organisations. Joint inspections or raids with medical or pharmacy departments enhance prosecution success rates and resource sharing. This partnership between agencies can also target fake braces providers running beauty spas and offering non-dental aesthetic treatments and unregistered cosmetic products.<sup>22</sup>

DEOs are committed to combatting the fake braces industry but face challenges due to inadequate training and resources. Research indicates that enforcement agencies with limited resources and insufficiently trained staff experience inefficiencies, leading to response delays, ineffective investigations, and staff burnout.<sup>23</sup> With a growing number of

registered dental professionals and complaints against both registered and illegal practitioners, there is a need to increase the DEO workforce and establish specialised sub-divisions within the unit to enhance enforcement efforts. Creating a dedicated team focused on prosecuting illegal dentistry cases will streamline operations and training.

Additionally, DEOs operate under highly stressful conditions, jeopardising their mental health and well-being. Similar findings reveal high levels of emotional distress affecting law enforcement officers and police involved in medical raids and undercover operations compared to regular officers.<sup>23,24</sup> Strategies to address DEO burnout include implementing new incentive policies in line with pharmacy law enforcement counterparts in Malaysia, providing opportunities for career advancement, and offering support for officers' well-being through counselling and mental health therapy.<sup>24</sup>

The rise of online marketing for dental products and equipment presents a significant challenge in controlling fake braces practices, not just in Malaysia but also in other countries in which illegal dentistry takes various forms. It is becoming easier for non-dental professionals to access affordable dental products and equipment thereby exacerbating the problem.<sup>12,25</sup> Some platforms, such as Amazon have shown initiative in controlling the sale of medical products and equipment to the public by requiring consumers to register their professional healthcare license or credentials prior to purchasing professional-use only and prescription medical devices.

However, a recent study revealed that, despite these initiatives, some orthodontic materials still manage to be sold to the public. The study also identified a substantial number of orthodontic brackets, arch wires, and elastic modules available on a local Malaysian e-commerce platform. None of these products or equipment were registered with the Medical Device Authority (MDA) of Malaysia, raising concerns about their quality, safety, and authenticity.<sup>26</sup> These items were often inexpensive and primarily sold by overseas sellers, particularly from China, making enforcement by the MDA extremely difficult and beyond the scope of the Oral Health Legislation and Enforcement Section. This is not an isolated issue limited to Malaysia, as many e-commerce platforms have largely evaded accountability for the sale of counterfeit or defective

products, although recent lawsuits in European countries have called for increased product liability.<sup>27</sup>

The present study highlights the role of online networking platforms, such as Instagram and Facebook, in supporting the advertising of fake braces.<sup>11–13,22</sup> Social media sites like YouTube, although not discussed in the interviews, have also indirectly fuelled the fake braces industry, as providers learn to place orthodontic brackets by watching YouTube tutorials, leading to the term “YouTube Dentist.”<sup>8,22</sup> The Oral Health Legislation and Enforcement Section regularly receives complaints from third parties flagging social media accounts, but the team lacks legal authority within these platforms. To address Facebook accounts and posts advertising illegal activities, DEOs collaborate with the Malaysian Communications and Multimedia Commission (MCMC), which is responsible for online content regulation.<sup>28</sup> Without evidence of legal infringement, it is challenging to compel major social networking platforms to take action.

While unethical advertising can lead to disciplinary action of dental professionals for violating the Code of Professional Conduct, there is no specific law that restricts lay people from posting advertisements on social media.<sup>19</sup> Similar to e-commerce platforms, there is growing concern over the lack of accountability for content posted on social media platforms, where disinformation, hate speech, revenge pornography, harassment, terrorism, and sex trafficking proliferate.<sup>29</sup> The recently adopted Digital Services Act (DSA) by the European Parliament, effective in 2024,<sup>30</sup> requires companies offering digital services to be more transparent about content moderation practices and to address illegal or harmful content on their platforms. This development may pave the way for increased online regulation, which is crucial in combating the sale of illegal medical devices on e-commerce platforms and the advertising of fake braces on social media networking sites.<sup>31</sup>

DEOs face challenges associated with the public's demand for fake braces, which creates opportunities for illegal providers to thrive despite the associated risks. This demand aligns with the growing interest in aesthetic dentistry, including orthodontic treatment, possibly fuelled by increased exposure to cosmetic dentistry through social media.<sup>32</sup> The commercialisation of dentistry over the years may

have contributed to the devaluation of dental care, as consumers seek to purchase a better smile rather than seek treatment.<sup>33</sup> In this scenario, consumers are ‘buying braces’ rather than orthodontic care. A similar trend is observed in Saudi Arabia, where decorative braces are not only available as DIY kits but are also offered in dental clinics, thereby blurring the line between orthodontic treatment and a fashion statement.<sup>18</sup> Long waiting times at government clinics and the high cost of orthodontic treatment in Malaysia exacerbate the issue, making orthodontic care unaffordable for low-income populations.<sup>12,34</sup> Therefore, increasing awareness of orthodontic treatment and providing affordable oral healthcare, including orthodontic treatment, is essential for vulnerable populations.

Illegal providers often receive support from consumers and their families as they generate substantial income. They also establish alliances and networks with other illegal providers for business expansion and training.<sup>34</sup> Therefore, a continuous effort to increase public awareness and education on the dangers of illegal orthodontics is crucial. While the Malaysian health authorities have implemented several oral health promotion initiatives, it remains uncertain whether an education campaign alone can alter the public's perceptions towards the fake braces industry. Addressing the magnitude of the problem requires community empowerment, strong enforcement, legislative measures, political commitment, policy changes, and support from various stakeholders to achieve the desired outcomes.

There were several limitations to this study. Firstly, the small number of participants involved made it difficult to generalise findings to a wider audience. Secondly, as the DEOs were government officials, certain details, and sensitive information were unable to be disclosed during focus group discussions. Future research may be expanded by interviewing other enforcement departments and stakeholders involved in dealing with fake braces cases to improve the co-ordination of enforcement activities across various agencies.

## Conclusions

The present study identified several predominant challenges faced by the DEOs in Malaysia. These challenges included technical, operational, social and legal issues, which pose significant hurdles in



addressing the problem of illegal orthodontics in the country. The complexity and magnitude of the issue require comprehensive strategies and support from multiple agencies to strengthen enforcement efforts. Further research is warranted to explore innovative strategies that can lead to sustainable solutions in protecting the public from becoming victims of illegal orthodontic practices in Malaysia.

## Conflict of interest

The authors declare that there is no conflict of interest.

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