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Exploring the Experience of Klang Valley Youths on Fake Braces by Bogus Dentists

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Abstract: The use of fake dental braces provided by bogus dentists is potentially dangerous to users' oral health. However, many people, especially youths, still fancy the use of these fake braces. This study aimed to explore the experience of youths from Klang Valley on the use of fake braces. This qualitative study used the phenomenological approach by interviewing ten youths aged between 16 - 27 years old who were from Klang Valley and wore fake braces. The tenth respondent formed the point of saturation of information in data collection. Semi-structured interviews were conducted to explore their experience in using fake braces. The interviews were conducted on the phone. Each interview lasted for a period of 10-15 minutes, and the conversations were recorded. The recordings were then transcribed verbatim, and thematic analysis of the content was used to develop the conceptual framework. Five major themes were discerned related to the respondents' views on the use of fake braces: a) physical appearance of teeth, b) influencing factors, c) seeking services of bogus dentists, d) procedures performed, and e) outcome of fake braces services. For youths with physical misalignment of teeth, fake braces are enticing due to the accessibility, availability, and affordability of bogus dentists. However, not all outcomes were perceived as favourable. Some perceived no change in the outcome, whilst most felt that fake braces led to worse consequences. This study's findings can provide the content for developing oral health promotion modules to check this unsafe practice.

Keywords — bogus dentists; fake braces; phenomenology; qualitative; youth.

I. INTRODUCTION

Dental braces are devices used to straighten and correct malalignment of teeth for better mastication and speech, improving aesthetics and overall health [1]. Fake braces that bogus dentists provide mimic the real braces but do not function as the real ones [2]. Bogus dentists – also referred to as quack dentists or fake dentists – are unqualified persons who perform clinical dental procedures, including fitting dental braces to correct malalignment of teeth. From January 2018 to September 2019, there were 219 reports on bogus dentists [3]. The use of fake braces draws interest among youths, defined as individuals within the age range of 15 – 30 years old according to the Youth Societies and Youth Development Act (Amendment) 2019 (Act 668) [4]. Youths are concerned with their physical appearance, including their teeth [5]. Physical appearance and attractiveness are important factors for psychosocial well-being, where physical flaws negatively affect self-esteem [6]. This led them to seek available services to correct the flaws, including teeth flaw.

The bogus dentists are readily available, easily accessible, provide services at cheaper costs [5], and some of their services are even endorsed by local celebrities [7]. The reports on bogus dentists indicated that most of them practice in the Klang Valley, where some are even reported operating in guarded premises [7]. Using fake braces was first reported in Thailand and then spread to other countries

like China, Indonesia, and Malaysia [5]. The main concern is that bogus dentists' services are harmful because they did not undergo the required dentistry educational programme [8]. It was also reported that the materials used for fake braces did not indicate manufacturing origin. Superglue was also found to be commonly used as a substitute for dental adhesives [9]. Dubious materials and superglue did not conform to medical devices' standards for treatment in the mouth [10]. The procedure to move teeth without proper skill and knowledge, as well as inappropriate materials, would be detrimental to the patient. The harmful effects include avulsion, root exposure, dehiscence, and fenestration [10] as well as allergies and severe poisoning [9]. Furthermore, sterilization, autoclaving, and disposable injections are not used, increasing the potential spread of diseases such as human immunodeficiency virus (HIV) and hepatitis B and C [11].

The fake braces can be easily identified if the brackets used are without slots. However, if the actual orthodontic brackets that come with wires, slots and elastics are used, it is difficult to identify if it is fake unless revealed by the patient [10]. These fake braces come with various colours and designs depicting cartoon characters like Mickey Mouse, Hello Kitty, and others. Fake braces can even be purchased from open-air stalls and night markets [12]. The use of fake braces by unqualified personnel is a cause for concern in dentistry [5]. Therefore, this study aimed to explore youths' experience from Klang Valley on the use of fake braces.

II. THE MATERIAL AND METHOD

This study was conducted among youths who wore fake braces and stayed in Klang Valley. It was a qualitative study based on a phenomenological approach. Sampling was done using the snow-balling technique. The first respondent for the interview was selected from the patients with fake braces who attended the Polyclinic Universiti Sains Islam Malaysia (USIM) for orthodontic treatment. This first respondent recommended the next respondent, and this process was continued until the point of saturation of information was reached; that is, the respondents revealed nothing new. Inclusion and exclusion criteria were used to determine the eligibility of the respondents. The inclusion criteria include living in Klang Valley, able to understand Malay or English, and aged between 15 – 30 years old. The exclusion criteria include people with braces treated by qualified dental practitioners and those unable to speak or hear.

Consent was obtained from the respondents before carrying out the interview. If a respondent is under 18 years old, the parent or guardian was requested to fill-up the consent form. Online consent forms developed from the Microsoft Forms were distributed to the respondents. Before filling the consent form, information sheets were distributed through WhatsApp to ensure that they understood the research procedure.

A semi-structured interview was conducted using a mobile phone that lasted for 10 to 15 minutes. Open-ended questions were used in the interview to encourage respondents in recalling and describing their experiences. The questions include the problems that led them to seek remedial actions, people's choice to provide the services, including the aspect of cost, the types of services provided and treatment modality, and the services' outcome. Additional questions were asked when necessary to gain a better understanding of the subject matter. The interviews were recorded on the mobile phone. The data were collected from August 2020 until October 2020.

After the interview, the recordings were transcribed verbatim. Triangulation was performed by a Dental Public Health Specialist and a behavioural scientist. Triangulation was used to validate the data through cross verification from two or more sources to test the findings' consistency.

Ethical approval was obtained from the Ethical Committee of the Universiti Sains Islam Malaysia (USIM) on 5th August 2020 (USIM/JKEP/2020-103).

III. RESULTS

Ten respondents (three males, seven females) were interviewed with age ranged from 16 – 27 years old. All (100%) were from the Malay ethnic group. Analysis of the interview transcripts discerned five major themes related to the respondents' view on the use of fake braces: a) physical appearance of teeth, b) influencing factors, c) seeking services of bogus dentists, d) procedures performed, and e) outcome of service for fake braces. Figure 1 offers a conceptual framework of the relationship between the major themes.

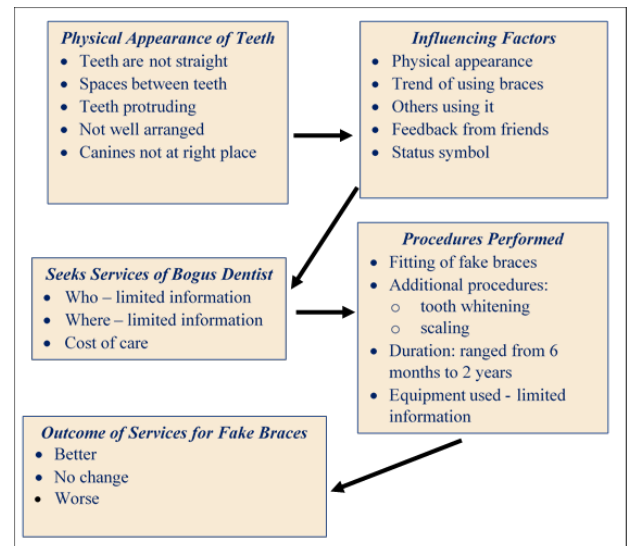


Fig. 1 Conceptual framework of the experience on fake braces

A. Physical Appearance of Teeth

When the respondents were asked regarding their teeth, they felt that their teeth were not straight. However, other respondents were dissatisfied with the physical arrangements of their teeth. These physical arrangements include protruding front teeth, irregularly arranged teeth, the presence of spaces between the teeth, and displaced canines. The respondents felt that the physical arrangement of their teeth affected their appearance.

"My teeth are not arranged well, and I do not look nice."

"My teeth, especially lower teeth, are not straight."

"My upper front teeth are pointed to the front, and the lower teeth are spaced."

"All my four canines are not at the place where it should be."

B. Influencing Factors

It was perceived that actions needed to be taken to address the problems of the physical appearance of their teeth. Nevertheless, other factors created the psychological drive to address the problem of physical arrangements of their teeth. The factors included the need to follow the prevailing trend, perception of poor aesthetics and feedback from friends and close acquaintances to do something with their teeth. Some respondents believe that the use of braces, apart from addressing the physical appearance of teeth, was also to project their status symbol and indicate that their actions align with the prevailing trend among youths to wear braces. The source of information on fake braces was from their friends or acquaintances. Others knew about fake braces through social media, specifically Instagram. The responses regarding actions to address the physical appearance of their teeth are indicated below.

"Recommended by a friend."

"A lot of people also wear them. I want to follow the trend and be pretty."

"Being forced by ex-husband, but I was not really into it."

C. Seeks Services of Bogus Dentists

The cost of fitting fake braces, as indicated by the respondents, ranged from RM50 to RM600. This excluded the cost of monthly maintenance. The monthly maintenance cost for the bogus dentists' fake braces differed according to the type of bands (power-O or power chain) used. The cost ranged from no charge at all up to RM120. The maximum cost to remove the bracket was RM10.

A summary of the charges for fake braces is presented in Table I.

TABLE I
SUMMARY OF CHARGES

Fitting braces (RM)	Monthly Maintenance (RM)	Removing bracket (RM)
50	20-25	Free of charge
80	Power-O: 30 Power chain: 35	5
100	50	Not indicated
150	Free of charge	5
200	80	Not indicated
200+	25	Not indicated
270	Power chain: 45 Power-O: 35	Not indicated
300	Power chain: 120, Power-O: 100	5-10
500	250	Not indicated
600	50	10

As indicated in the above table, the respondents felt that the cost factor played a dominant role in influencing them to use fake braces provided by bogus dentists. The bogus dentists provided fake braces services at a cheaper rate than that provided by the dentists or orthodontists. Ostensibly, the respondents considered the cost of services for fake braces by these bogus dentists as reasonable. They also recognized that although the cost may be reasonable, the service may come with some risks.

"Reasonably priced and cheaper than in the clinic, especially when a lot of customers did with her, she will offer a lower price. When the bracket is suddenly dislodged, it's free to change to the new one."

"Okay, it was not burdensome. Reasonable price for a student."

"I don't know what to say, but... It seems okay because real braces are costly. Fake braces are cheaper but a lot of risks."

Apart from cost, some respondents perceived the procedure by dentists or orthodontists as invasive because it involved the extraction of teeth. The respondents knew that using fake braces did not require any extraction of teeth.

They felt that this was also the main reason that attracted them to seek bogus dentists' services.

"When I surveyed on real braces, I felt scared after knowing that my right teeth may get extracted."

There was limited information on who these bogus dentists were since the respondents were reluctant to reveal these bogus dentists' identity. However, it was brought to our attention that a person who provided the service was a dental nurse, which played a significant role in influencing a respondent to seek her fake braces service.

The respondents also gave limited information to reveal the places or locations where these bogus dentists provided their services. However, it was noted that the services were provided at home, either at the bogus dentist's residence or this bogus dentist made a house call.

D. Procedures Performed

During the treatment process, the respondents noted several aspects, such as length of treatment, the specific treatment given, additional treatments included, and type of equipment used. Most respondents said that the services received were confined to the purpose of the visit, fitting of braces. Nevertheless, some also received services for whitening and scaling of teeth.

Regarding infection control, it was observed that only a few bogus dentists wore gloves. No other views were highlighted on other preventive measures. Several respondents mentioned the use of up-to-date equipment during the procedure of fitting the fake braces.

The respondents only mentioned that the period of treatment ranged from six months to four years. The mean period of service was 16.6 months. However, they did not indicate their views on this treatment period with the bogus dentist for fake braces, even when prodded.

E. The outcome of Service for Fake Braces

The respondents' responses on the perceived outcome of these bogus dentists' services were categorized into three groups: positive outcome, no significant change, and worse condition.

The respondents who felt that their outcome was positive based their opinion on the spacing between the teeth getting closer, the misaligned teeth seemed to be getting straighter, and they felt more confident with their smile.

"The spacing between my teeth is getting closer, and the canine has been positioned into its appropriate place."

"The teeth looked well-arranged while smiling appears more attractive. Feeling very satisfied and there is no problem."

Those who felt that there was no significant change after wearing the fake braces for sometimes are indicated below.

"For me, I did not see any changes. Maybe, if there is a little improvement after the treatment, it may not be that much."

The respondents who perceived their oral conditions are becoming worse mentioned the ruined alignment of teeth, the appearance of spaces between teeth, more protruded teeth, swelling of the gum due to ill-fitting of fake braces, and the worsening overall conditions of their teeth than before.

"Initially, it was okay. But, when the band suddenly broke off, my teeth become ruined as it got displaced from its original place. Even after I did services with the practitioner, my teeth condition remain the same."

"My teeth are spacing apart, while upper front teeth become more pointed to the front, and the arrangement of the teeth is ruined."

"I had gum swelling at the area where the bracket was dislodged as the wire keep pricking my gum, even after it was adjusted."

Most respondents also felt that the fake braces were not worth the money paid because they do not get the expected result. Some thought that the services provided were too simple for the price they paid.

"Seems like not worth it because I didn't get the result that I want."

"It's better to invest rather than get fake braces at a lower price, but in return, your teeth condition gets worse."

"The services are too simple, not worth for RM50 being paid just to change the band."

"The price is low, but the quality and satisfaction cannot be achieved. Such a waste of money."

IV. DISCUSSION

This study explored the experience of youths in Klang Valley on fake braces using the phenomenological approach. The findings were summarised into five themes starting with the experience on the teeth's condition and appearance. Secondly, at the same time, the person formed the perception of his/her appearance based on feedback received from friends and the prevailing trend. Thirdly, taking into cognizance of the conditions of the teeth and social situation, the person felt that something should be done to address the problem by seeking the bogus dentist's service as a contingency measure. Subsequently, during the process of getting the service from the bogus dentist, the person formed several perceptions on the period of time of the service, specific service given, and other additional services rendered. Finally, he/she appraised the overall outcome of care.

The service of fake braces was provided by non-qualified or non-professionally trained people [13]. They are bogus dentists or quack dentists, or fake dentists who practised dentistry illegally. Dentistry is a profession regulated by the Dental Act 1971 (Act 51) [14]. The Act was promulgated to ensure the safety of the public in matters related to oral health care. Dental practitioners are legally registered with

the Malaysian Dental Council (MDC) after fulfilling all the stipulated requirements. Under Section 2 Subsection 2 of the Dental Act 1971, a person shall be deemed to practise dentistry within the meaning of the Act if he/she holds himself out, whether directly or indirectly, as practising dentistry. Therefore, those who provide fake braces services are considered practising dentistry and are deemed to violate the Act.

The practice of dentistry outside the public service must be carried out in a healthcare facility duly registered under the Private Healthcare Facilities and Services Act (PHFSA) 1998 [15]. The bogus dentists usually perform dental procedures at home, hotels, salons, and homestays to avoid the authorities' detection [16]. This violates the PHFSA as the premises owner does not fulfil the requirements as stipulated in the said Act. Violation of the Act is punishable by law. Those found guilty face a fine of up to RM300,000 or a maximum jail sentence of six years, or both.

Braces are considered orthodontic appliances. The procedure to provide this appliance must be performed by dentists who specialize in Orthodontics or has attended relevant accredited courses. Orthodontic procedures cannot be performed by anyone else even though they have a dental health education background like dental nurses. The existence of individuals who use fake braces may indicate that there is poor public awareness of this violation of the law in providing dental treatment or services by non-qualified practitioners [13].

In this study, the age group involved in wearing fake braces range from 16 to 27 years old. For youths or young adults, appearance matters and sometimes outweigh their health concern [17]. These youths wore the braces due to recommendation from friends [18] and appeared to be pressured by them.

In Malaysia, the most common complaint about bogus dentists in the previous decade was on the procedures like dentures, extractions, and fillings [13]. In this study, apart from fitting fake braces, respondents also informed that other services were provided, such as tooth whitening and scaling of teeth. It appears that the trend is shifting to other dental procedures as mentioned.

In this study, the respondents indicated that a few bogus dentists wore gloves during the procedure. However, infection control is much more than that. These bogus dentists' outcome of procedures is a health concern in terms of cross-infection and the safety of the materials used [16]. Seeking services from bogus dentists can expose people to dangerous infectious diseases such as human immunodeficiency virus (HIV), hepatitis, and tuberculosis due to compromising the infection control and increase risk of morbidity and mortality due to lack of medical knowledge among the bogus dentists [19]. Dental procedures greatly emphasize infection control as both patients and healthcare professionals are predisposed to infections transmitted via blood, fluids, contaminated instruments, and surface or respiratory secretion [20]. According to the Guidelines of Infection Control in Dental Practice (2017) by the Malaysian Dental Council (MDC), all clinical staff should receive a vaccination on Hepatitis B. Personal protective equipment such as gloves, mask, protective eyewear, face shield, and protective clothing should be worn especially during splash-

generating procedures such as scaling. All equipment entering the patient's mouth or contacting skin must be sterile, and autoclavable instruments must be autoclaved [21]. Fake braces are often fitted by bogus dentists at home, in a non-sterile environment with non-sterile instruments. This situation will predispose the bogus dentists and those who seek their services to infectious diseases [11].

In this study, all respondents mentioned that they never took any radiograph before fitting the braces. Proper investigations, including radiographs and study models, are essential for correct diagnosis and treatment plan [13]. In terms of material, respondents mentioned the power-O and power chain elastic band need to be changed every month. In orthodontics, O-rings are rubber band or elastomeric material that fit and surround each bracket to hold the archwire into position. At the same time, power chains made up of rubber are linked together like a chain [22]. Both materials come in a variety of colours to suit patient preferences. Although they resemble the real orthodontic bracket for metal brackets, the quality of the material was substandard [16]. A local laboratory analyzed some fake metal brackets under the scanning electron microscope, which showed crack lines and cavitation [23]. The bracketed material and adhesive used were unsuitable to be used intra-orally and do not conform to the required standards of medical appliance [10]. Ease of access to online purchasing and e-commerce apparently enable bogus dentists to obtain dental materials at low prices [13].

In private dental clinics, the cost of metal braces ranged from RM4000 up to more than RM8000. In government dental clinics, the fee is much less, at about RM1000, but the waiting list is long [24].

The respondents in this study indicated that the period of treatment ranged from six months to four years. A systematic review found that the mean treatment time with fixed appliances was 19.9 months. There were significant variations among studies ranging from 14 to 33 months. According to the American Board of Orthodontics (ABO) standards, the mean treatment time for the fixed appliance is 24.6 months [25]. Extremely long treatment time can increase the patient's susceptibility to have root resorption, carious lesions, white spots, and gingival inflammation [25]. Therefore, the treatment time by these bogus dentists is a reason for concern.

Regarding the treatment outcome, several respondents mentioned that their teeth alignment improved with the spacing getting closer and their teeth looked well-aligned. The self-assessment of improved oral condition may not represent the actual clinical improvement [26]. In orthodontics, the treatment aims and objectives are summarised by the Jackson's Triad, which emphasized functional efficiency, structural balance, and aesthetic harmony [27]. Andresen characterized the aim of orthodontic treatment as achieving an individual functional and aesthetic optimum [28]. Meanwhile, Ahlgren categorized the outcome of orthodontic treatment ranging from excellent to unsuccessful. Here, an excellent result means that the patient achieved normal occlusion as close as possible to the Angle's ideal occlusion, while an unsuccessful result means that the malocclusion either remains, deteriorated or new malocclusion evolved [28].

V. CONCLUSION

Fake braces offer a purported solution to youths who face psychological insecurity due to physical misalignment of their teeth. Fake braces popularity is facilitated by the accessibility, availability, and affordability of bogus dentists, although some youths suspect that fake braces may have some risks. Not all outcome of services of these bogus dentists were perceived to be favourable. Some perceived the outcome as no change, whilst most felt the outcome to be worse.

ACKNOWLEDGEMENT

We would like to extend our gratitude to Universiti Sains Islam Malaysia (USIM) for the research grant awarded (PPPI/KHAS_FPG/051007/18820) to carry out the study.

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Received 18th February 2021; Revised 23rd March 2021;
Accepted 24th March 2021; Published 1st April 2021

Academic Editor: Azira Khalil
USIM Press
Malaysian Journal of Science, Health & Technology
Vol. 7, No. 1 (2021), 6 pages
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