

Kertas Asli/Original Articles

Oral Health Knowledge among Healthcare Professionals and Their Challenges in Dealing with Patients' Oral Health Problems (Pengetahuan Kesihatan Pergigian di Kalangan Pengamal Penjagaan Kesihatan Profesional dan Cabaran dalam Mengendalikan Masalah Pergigian Pesakit)

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ABSTRAK

Peranan Pengamal Penjagaan Kesihatan Profesional (PPKP) dalam mempromosikan kesihatan pergigian sudah diterima umum, akan tetapi usaha untuk menjadikan mereka kompeten dalam aspek ini masih belum mencukupi. Kajian ini bertujuan untuk menilai pengetahuan PPKP tentang kesihatan pergigian dan penjagaannya, dan mendalami cabaran yang mungkin dihadapi oleh mereka dalam menangani masalah pergigian di kalangan pesakit mereka di klinik kesihatan primer. Perbincangan kumpulan berfokus telah dijalankan melibatkan sepuluh orang PPKP daripada pelbagai disiplin yang merawat pesakit secara langsung di sebuah klinik kesihatan primer kerajaan. Soalan-soalan yang ditanya terbahagi kepada dua bahagian: (1) pengetahuan tentang kesihatan pergigian dan kaitannya dengan kesihatan umum, dan (2) isu dan cabaran yang dihadapi dalam menangani masalah pergigian pesakit sebagai sebahagian daripada rutin kerja seharian mereka. Sesi perbincangan dirakam menggunakan perakam audio digital dan seterusnya ditranskripsikan, manakala skrip perbincangan dibahagikan kepada beberapa bahagian dan dianalisis secara kualitatif. Sebahagian besar daripada mereka mempunyai pengetahuan yang baik tentang kesihatan umum dan kesihatan asas pergigian. Walau bagaimanapun, hanya sedikit yang tahu tentang perkaitan antara masalah pergigian dan keadaan sistemik. Antara cabaran utama yang dihadapi PPKP di klinik kesihatan primer semasa berhadapan dengan pesakit yang mempunyai masalah pergigian adalah pengetahuan kesihatan pergigian yang terhad dalam menguruskan masalah kesihatan mulut termasuk kaedah menguruskan pesakit pergigian yang mempunyai masalah perubahan dan kesukaran untuk mengubah minda pesakit berkaitan kesihatan pergigian terutamanya untuk mendapatkan rawatan pergigian. Kesimpulannya, PPKP yang terlibat dalam kajian ini mempunyai pengetahuan yang terhad tentang kesihatan umum dan kesihatan mulut, namun mereka mempunyai pengetahuan yang memuaskan tentang hubungan antara kesihatan mulut dan kesihatan sistemik, dan banyak cabaran yang dihadapi apabila berurusan dengan pesakit terutamanya kekurangan pengetahuan dalam fakta kesihatan mulut serta masalah berkaitan preskripsi ubatan untuk penyakit mulut. Keperluan untuk latihan tambahan penting untuk pasukan PPKP dan pergigian bagi membolehkan kedua-dua pihak memberikan perkhidmatan yang terselaraskan dan menyeluruh kepada pesakit dengan masalah pergigian di klinik kesihatan primer.

Kata kunci: Kolaborasi interprofesi; koordinasi rawatan; multidisiplin; pengetahuan kesihatan pergigian

ABSTRACT

The important role of non-dental healthcare professionals (HCPs) in promoting oral health is well-accepted and has received increased attention in recent years. However, greater efforts are needed to train them in ensuring better competency in delivering this role. The aim of the present study is to assess oral health and care knowledge among HCPs by further exploring possible challenges faced by them in managing oral health problems, particularly in regard to patients in a public primary healthcare clinic. In the case of the current research, a focus group discussion was carried out with ten HCPs who are directly involved with patients from different units within the health clinics. In particular, the questions developed for the focus group discussion were divided into two parts: (1) knowledge on oral health and its link to general health, and (2) issues and challenges faced by HCPs in handling patients with oral health problems in their daily routine. The session was recorded on a digital audio tape, the responses were then transcribed, followed by the grouping of the scripts which were then qualitatively analysed. The results revealed that majority of the participants appeared to have good knowledge of general and basic oral health; however, only very few of them were aware of the relationship between oral health problems with systemic conditions. Meanwhile, one of the main challenges faced by HCPs in handling patients with oral health problems is their limited knowledge of oral health problems. Specifically, the

main challenges refer to the management of medically compromised patient requiring dental treatment as well as the difficulty in changing the mindset of patients regarding oral health issues, especially in terms of seeking dental treatment. In conclusion, it has been clearly observed that HCPs involved in the present study have good knowledge of general health and oral health but limited knowledge related to oral health to systemic health. Furthermore, they tend to face numerous challenges when dealing with patients, especially due to their limited knowledge of oral health facts and drug prescription for oral problems. Therefore, there is an urgent need of additional training for both HCPs and dental teams for the purpose of enabling both parties to provide coordinated and comprehensive service to patients with oral health problems at the primary healthcare clinics.

Keywords: Interprofessional collaboration; care coordination; multidisciplinary; oral health knowledge; healthcare professionals

INTRODUCTION

The current scenario in Malaysia clearly reveals high prevalence of oral diseases whereby the prevalence of caries (tooth decay) among Malaysian adults is recorded at 90%, while periodontal (gum) disease is found to have affected 94% of the population (Ministry of Health Malaysia 2013). According to the World Health Organization (2003), oral health is essential to the general health and well-being of individuals and the population despite the fact that it is not commonly life-threatening. Regarding this matter, it is important to note that oral diseases may cause negative impacts on the quality of life of the population as well as social and economic burden on the nation which include the impairment of chewing ability, loss of appetite, insomnia, poor academic, and work performance (Bennadi & Reddy 2013; Mohd-Dom et al. 2013; Mohd-Dom et al. 2016). Furthermore, it should be noted that there is an increasing number of evidence of the link between periodontal disease and systemic conditions (Chapple et al. 2013; Linden et al. 2013; Tonetti et al. 2013). For instance, Chapple et al. (2013) stated that patients with periodontal disease are more likely to develop diabetes; hence, untreated periodontal disease can inevitably cause more morbidity which will eventually lead to tooth loss in many individuals.

On another note, the recent national survey showed that 27.4% of Malaysian adults tend to visit dental clinics within a year (Ministry of Health Malaysia 2013). As a result, this has raised a number of concerns over the well-being of the majority of the population with oral health problems who do not visit the dental clinic regularly. In this case, the concerns specifically refer to whether they are aware of their oral health status as well as are they seeking treatment for their dental problems? Noteworthy, oral health problems in advanced stages are commonly accompanied by pain and systemic conditions, thus patients are more likely to attend primary healthcare clinics instead of dental clinics in seeking treatment for these symptoms. Meanwhile, it is important to acknowledge that the vital role of a healthcare professional (HCPs) has been

recognised, particularly in enhancing the access and quality healthcare for the population through the promotion of health and delivery of healthcare services to the vast population (World Health Organization 2006). Therefore, this has led the HCPs in primary healthcare clinics to be strategically placed in recognizing early signs and symptoms of oral diseases among patients in their clinics, followed by referring them accordingly for dental treatment.

In spite of this recognition, only a limited amount of literature is presently available on the level of knowledge of HCPs regarding oral health and oral healthcare, including their experience on the identification of oral diseases in their work environment (Mohd-Dom et al. 2015; Mohd-Dom et al. 2016). More importantly, it should be noted that most of the available studies were conducted quantitatively using a self-administered questionnaire for the purpose of assessing HCPs' knowledge and awareness towards oral and periodontal health (Pralhad & Thomas 2011; Preston et al. 2000; Richards et al. 2014). Regarding this matter, currently, it is safe to say that there is an inadequate number of qualitative studies which explored the challenges faced by HCPs when handling patients with dental problems. Therefore, the aim of the current research is to assess the basic oral health knowledge among HCPs as well as explore possible challenges faced by HCPs in managing oral health problems among patients in a public primary healthcare clinic.

MATERIALS AND METHODS

In the case of the present study, ethics approval was obtained from the university's research and ethics committee (UKM PPI/111/8/JEP-2018-198), while consent from all participants was collected prior to the conduct of the study. Specifically, a group of government primary healthcare professionals which represents mixed categories of job scope were invited to participate in the present study. Regarding this matter, it is important to note that the inclusion criteria of the current research include HCPs with

minimum experience of three years of service who directly deal with patients as well as able to converse well and express an opinion during a discussion. On a more important note, the selection of ten participants representing the multidisciplinary group in the primary health clinic was made by the Head of Department of Family Medicine with the inclusion of a medical laboratory technologist that was directly involved with the patients in history taking during blood tests. On average, the age of participants was between 28 and 42 years old with working experience ranging from 3 to 23 years (mean 12.8 years) (Table 1).

In the case of the current research, a focused group discussion (FGD) was conducted based on the guidelines developed by Velida Dzino-Silajdzic (2018) and Mohd Nordin et al. (2014). Specifically, it is important to note that the construction of the scope of the FGD and questions was initiated through a closed discussion with a Dental Public Health Specialist that had an experience of conducting a qualitative study. Next, the questions were presented to a Family Medicine Consultant of the respective clinic for the purpose of the face and content validation. Meanwhile, a Specialist Registrar in Periodontology who had undergone training on qualitative study prior to the session was selected as the moderator for the FGD.

The session which began with a brief introduction, explanation of the purpose, and scope of the discussion lasted for about one and a half-hour with the help of a series of questions that triggered the discussion. In this case, the trigger questions include: “What is health?”, “What is oral health?”, “What is the relationship between health and oral health?”, and “Describe the criteria of healthy dentition”. As the discussion progressed, more questions regarding the challenges in dealing with patients with dental problems were asked to the participants: “Have you ever encountered a situation where you had a

patient with an oral problem?”, “How did you respond to the problems?”, “What did you do to manage the situation?”, and “What did you advise them?”. Apart from that, several other topics were also discussed, particularly in terms of their daily job scope, their idea of an ideal working environment, and the degree of interaction and communication with patients.

In the case of the current research, responses from the HCPs were recorded using an audiotape with the help of an assistant in ensuring that all participants were actively involved in the session. More importantly, the saturation point was assumed to have been met when there was no new answers or additional points added to the response, even after being prompted by the moderator. Subsequently, the recorded audio from this session was fully transcribed, followed by the grouping of the data according to the research objectives. Furthermore, the transcribed responses were tabulated qualitatively into main points, themes, and dialogues for each objective. Finally, the interpretation and reporting of the dialogue were then verified by the principal investigator.

RESULTS

KNOWLEDGE OF HCPS ON ORAL HEALTH AND GENERAL HEALTH

Majority of the participants appeared to have good knowledge of general health and basic oral health. For example, they were able to provide the correct definition of caries and correct description of the symptoms of periodontal disease. Apart from that, they also recognized unusual growth, swelling, or lesions in the mouth as well as having the necessary awareness regarding the relationship between health and oral health:

TABLE 1: Participants involved in the focus group discussion

No.	Job description	Year of service
1	Medical Officer	12
2	Assistant Medical Officer 1	22
3	Assistant Medical Officer 2	13
4	Medical/Staff Nurse 1	23
5	Medical/Staff Nurse 2	19
6	Medical/Staff Nurse 3	10
7	Medical Laboratory Technologist	6
8	Physiotherapist	15
9	Pharmacist	3
10	Dietitian	9

“no gum bleeding”

“no dental caries”

“kids who do not take care of their dental hygiene may get gingivitis”

Moreover, they clearly understood that good health is comprehensive, while good oral health reflects the absence of clinical signs and symptoms. Other than that, they were aware of the relationship between oral health problems with systemic conditions:

“health begins from head to toe; from hair care, skin, face, teeth, heart, body, other organs until feet...”

“health in aspect of physical and mental, covering all normal aspects...”

“considering being fit and healthy and fulfil the criteria for not being labelled as patients or (have) symptoms that requires treatment”

Nevertheless, a few of the participants showed a misunderstanding of the relationship between oral health and pregnancy, including the effect of mental health and bruxism on oral health (Figure 1).

CHALLENGES FACED BY HCPS IN MANAGING ORAL HEALTH PROBLEM

All the participants with the exception of the medical lab technologist mentioned that they often encounter patients with oral health problems and gum swelling in their daily routine. Moreover, the majority of the participants agreed that they tend to face a lot of challenges handling patients with oral health problems (Table 2).

Regarding this matter, all of the participants admitted that they tend to have a major issue in managing medically compromised patient which require dental treatment. Apart from that, they also found it difficult to change the mindset of the patients in seeking treatment for oral problems from dentists instead of medical personnel:

“it is difficult to tell patients to go see the dentist (when having oral health problems), but easier to tell them to see the doctor...”

“they say if see the dentist, they will not get the MC (medical certificate)...”

“patient will ask doctor’s opinion first before decides to go see the dentist”

TABLE 2: Perceived issues and challenges faced by HCPS in managing oral health problems

Perceived challenges	Specific areas of concern
Problems faced by HCPS in managing oral health problem of patients at a primary healthcare clinic	1. Management of medically compromised patient requiring dental treatment
	2. Patients choose to get painkiller/consultation from a medical doctor instead of consulting a dentist
	3. HCPS have limited jurisdiction and knowledge in managing dental problems
	4. Difficulty in changing the mindset of patients
	5. Lack of knowledge about dental health among HCPS
Challenges faced by patients at a primary healthcare clinic	1. Do not know about the actual problems that they have
	2. Cost of dental treatment is high
	3. Do not know the source to get treatment
	4. Only received treatment when needed
	5. Lacks knowledge about oral health
	6. Ashamed to ask about their oral health problem
	7. Too scared to get the dental treatment
	8. Wrong perception towards the job scope of a dentist
Limitation of dental service that affects patients at a primary health clinic	1. Dental treatment is causing psychological trauma to patients
	2. Poor dental services to patients by a dentist
	3. Lack of promotion on dental health
	4. Long waiting list
	5. Distant location of dental clinics
	6. Lack of dental materials and facilities
	7. Treatment options were not given to patients
	8. Cost of treatment is high and inconsistent between clinics
	9. Differences in services between government and private clinics
	10. Treatment time is long and needs several visits
	11. Treatment options are limited

“it is expensive to go to (dental) private clinic, so just keep the pain...”

“sometimes they don’t even know simple things like that (go for dental checkup)”

“when there is obvious cavity on their teeth, then only they will see you (dentists)”

In addition, a number of feedbacks provided by the HCPs somewhat reflect their own and patients’ misunderstanding and unawareness regarding the services provided by the dental team. For example, they claimed that the dentist tends to only treat the tooth of a patient rather than treating the patient in a holistic way. In addition, it was emphasized that there is a lack of information on various dental services provided by the dental team:

“they don’t think (the dentist) can handle other things, so they go to the doctor first then asked to be referred to dentist”

“when there is pain from gum, see the doctor first”

“because there is swelling, the dentist will not do anything...”

“problems in the oral cavity other than (tooth) decay, they will see the doctor first not the dentist”

“because dentist is about teeth (only)”

The most common management carried out by the participants was to refer the patients with oral health problems to the dentists (Figure 2). On a final note, it is important to acknowledge that the majority of the participants agreed with the idea of getting relevant

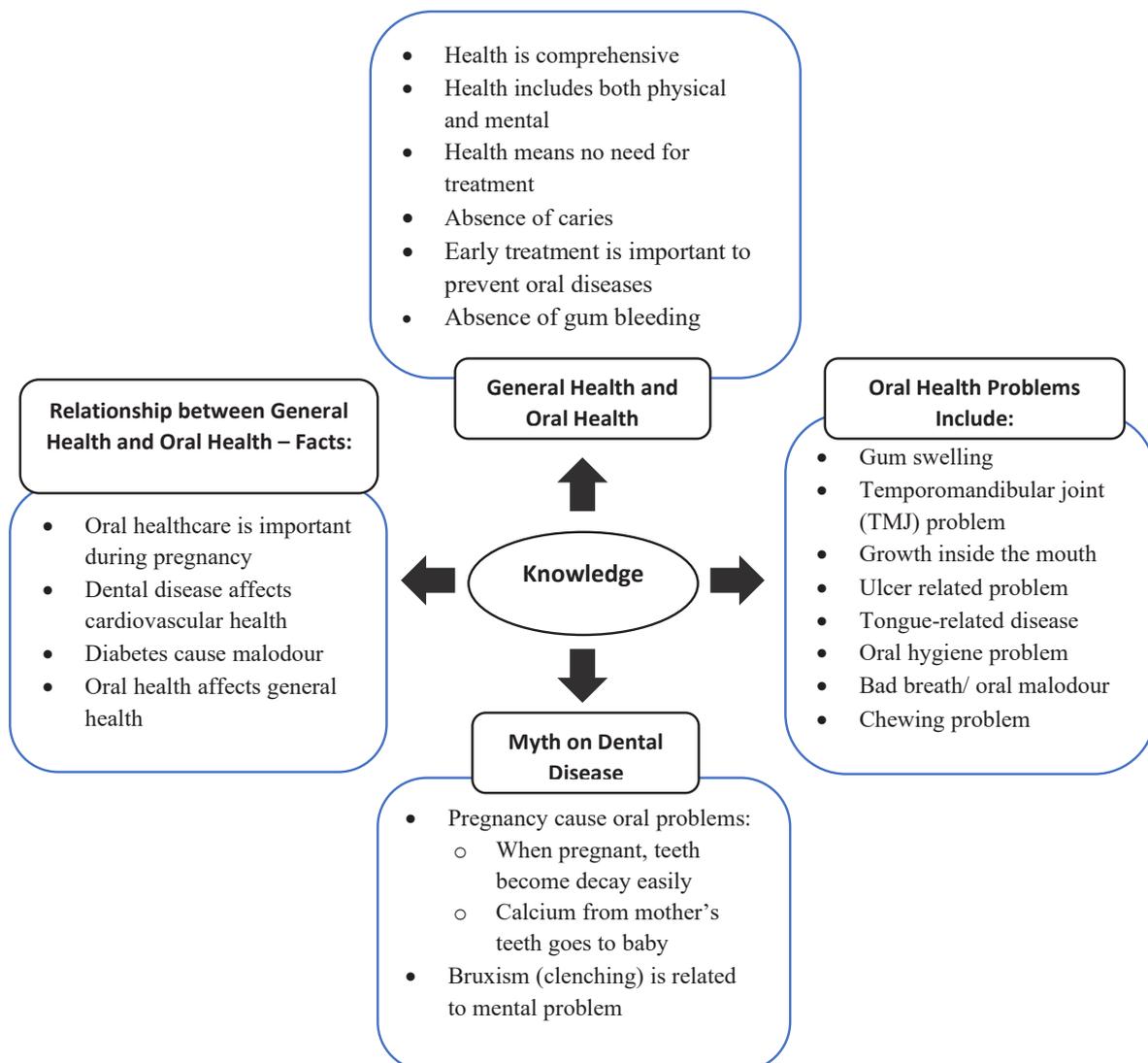


FIGURE 1: Themes regarding knowledge of HCPs on oral health and general health and the main points of responses

additional training from the dental team. The purpose is to enable them to recognize well the signs and symptoms of oral problems as well as the basic guidelines on referring cases to the dental team which can benefit patients at a primary health clinic.

DISCUSSION

In the case of the present study, it was revealed that majority of the participants who are active HCPs working at a government primary healthcare clinic generally possess good knowledge of the meaning and scope of oral health. However, it was unfortunate that the HCPs showed lack of awareness as well as misconceptions on a number of aspects of the relationship between oral and general health, particularly regarding the impact of pregnancy on oral health. More importantly, the findings coincide with other studies that investigated the knowledge of healthcare providers. For instance, obstetricians were reported to be unaware of the role of periodontal disease as a pregnancy risk factor (Wilder et al. 2007), while general practitioners were found to be less informed about oral health practices on pregnant women (Al-Habashneh et al. 2008). Similar to a point mentioned by the participant of the current research, a study by Özen et al. (2012) showed that 73% (n=256) of their participants believed that calcium would be drawn out of their teeth by the developing foetus. Therefore, it is imperative for corrective measures to be taken in ensuring that HCPs only provide accurate information to the general population.

On a more important note, the current research found that the HCPs encounter numerous challenges when dealing with patients having oral health problems. In this case, one of the challenges is particularly related to the prescription

of medications such as antiplatelet and anticoagulant prior to dental procedures. As suggested by Wahl (2013), this clearly emphasizes the crucial point of discussing cases between HCPs and dentists prior to making a clinical decision that is related to oral health. The decision to prescribe as well as the timing of antibiotic prophylaxis is one of the main concerns shared by HCPs, particularly in the case of patients that have infective endocarditis and needing dental treatment. Evidently, it has to be stressed that more updates in the knowledge and training revision on the latest guidelines such as the guidelines developed by the American Heart Association Endocarditis Committee on antibiotic prophylactic regimens for dental procedures would benefit clinicians, especially both dentists and health personnel (Wilson et al. 2007, Peterson & Crowley 2019).

Meanwhile, it has been highly acknowledged that it is difficult to change individuals' mindset regarding dental treatment. For example, it has been observed that many individuals still refused to visit dental clinics annually or if they do, the main reason is due to the presence of extreme symptoms (e.g. severe toothache) which need professional dental attention. Moreover, it should be understood that irregular attendance pattern is highly associated with the level of dental anxiety, while dental anxiety is highly associated with having a previous perceived bad experience as well as low level of education (Milgrom et al. 2010). In the meantime, one the main reasons for seeking analgesics (to relieve dental pain) from the medical team instead of seeking treatment and advice from the dental clinic can possibly be explained by dental anxiety among the patients or the lack of knowledge about the symptoms of dental problems. Hence, it is not surprising that this issue was mentioned during an interview with emergency unit doctors who acknowledged having written many opioids

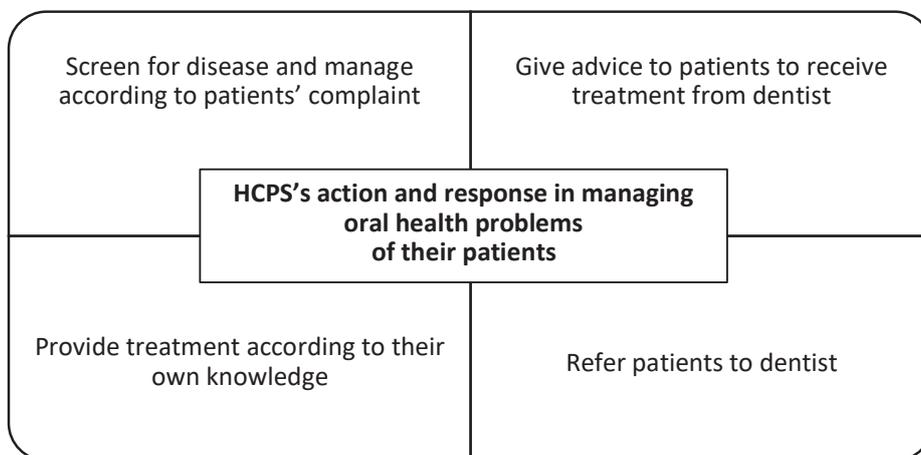


FIGURE 2: The actions and response of healthcare professionals when managing oral health problems among patients

prescriptions to patients with dental pain (Saint Louis 2012). Therefore, this clearly shows that several efforts need to be taken which include having an integrated care pathway for patients in primary healthcare setting similar to the care pathway provided for post-stroke patients (Abdul Aziz et al. 2017). Furthermore, this is considered important because dental care which is part of the multidisciplinary team treating patients with systemic problems has managed to produce promising results in patients oral health awareness as well as self-care (Ono et al. 2005; Ab Malik et al. 2018).

In general, the participants of the present study were found to have a great awareness regarding their role of referring patients with oral health problems at primary healthcare clinic setting to dentists. In addition, it is noteworthy to acknowledge that a recent report stated that pharmacists have been rather confident in handling related analgesic medication such as dental pain reliever (95.8%), mouth ulcers (95.1%), oral thrush (94.4%), and toothache (93.8%) (Taing et al. 2016). Therefore, this eventually supports the need for interprofessional education with regard to basic oral healthcare knowledge as well as the identification of simple signs of oral disease among HCPs (Mohd-Dom et al. 2015).

More importantly, the findings of the present study enable the preliminary identification of the level of knowledge among HCPs, particularly in regard to oral health as well as how it may be related to their daily work at a primary healthcare clinic setting. Furthermore, the current research has made it possible to strategise plans for improving the collaboration between medical and dental teams in producing more efficient patient management and tackling common risk factors between oral diseases and non-communicable diseases as part of the effort to effectively control these diseases. For example, the first action can be taken by promoting basic knowledge about oral health at the organization or district level. Apart from that, the dental team could also be actively involved in the training session with HCPs by incorporating basic dental education into medical/health training syllabus.

Overall, the current research has managed to recognize that not all participants were able to actively participate in the discussion such as the case of the medical laboratory technologist considering the fact that medical officer, medical assistants, nurses, and dietician tend to have more experience to share. Moreover, the participants also went off-track by relating to more of their personal opinions and experiences in regard to oral health problems and dental services utilization. Nevertheless, the moderator was able to steer the discussion to relevant issues; hence, the information gathered was deemed sufficient and beneficial in answering the objectives of the present study.

CONCLUSION

The HCPs that participated in the present study possess good knowledge of general health and basic oral health. However, they have limited oral health knowledge in terms of relating oral health to systemic health as well as a number of challenges in dealing with patients with dental problems. Regarding this matter, the results of the present study revealed that the limitations and challenges are caused by their limited knowledge of oral health facts and drug prescription for oral problems. Generally, the group acknowledged the need for additional relevant training through an integrated team approach that is believed to enable them to provide coordinated and comprehensive service to patients with oral health problems at primary healthcare clinics.

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