



Continuing professional development (CPD): Participation and perception among practicing dentists in the public sector in Khartoum state – Sudan 2018

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ABSTRACT

In order to keep up to date with knowledge, technology and clinical procedures, practitioners need to continue to learn throughout life.

Conflict of Interest—none

Objectives

To describe the participation pattern and assess the perception and barriers of dentists in the public sector in Khartoum state/ Sudan towards the Continuing Professional Development (CPD).

Funding—none

Materials and Methods

A total of 261 dentists working in the public sector, participated in the study. Self administered questionnaire were distributed after giving them brief idea about the topic. Analysis was done by using SPSS version 22. Chi square test was used to find associations.

Results

The response rate was 93.2%, out of which 73.6% were females. The mean age was 32.4 years. General practitioners were 61%, 26.8% were specialists and 11.9% were registrars. 41.8% of the dentists work in public sector only. Eighty two percent from the participants had attended CPD activities before. Lectures and conferences were the most continuing educational activities attended, while reading journals and e-learning were the least. Esthetic dentistry and implant were the most preferable topics. Courses with hands on were perceived as the most effective mode of delivery (75.9%). The topic of interest and presence of knowledge gap were the most encouraging factors for attending CPD and cost perceived as the most common barrier.

Conclusion

The majority of the dental practitioners working in the public sector in Khartoum state attended CPD at least once and had positive perception towards it.

Keywords: Barriers, Continuing Professional Development, Dentists, Participation, Perception

INTRODUCTION

Continuous Professional Development (CPD) for health professions, is increasingly becoming recognized as important in order to maintain and develop their competencies.¹ CPD should support specific changes in practice and include gaining knowledge and improving patient care.² There are a variety of definitions regarding the CPD. The Academy of Medical Royal College (AoMRC) defined

CPD as “a continuing process, outside formal undergraduate and postgraduate training that enables individual doctors to maintain and improve standards of medical practice through the development of knowledge, skills, attitudes and behaviour”.³ It is an ongoing learning process building on initial education to ensure competence regarding current and future work duties; it goes beyond the traditional designation for doctor's

continuous medical education which include medical knowledge and skills and it expands content from clinical to holistic topics such as interpersonal communication skills, ethics, practice management, professionalism, and extends learning places from the classical conference room to practice settings.⁴

Graduates from dental colleges are up to date with the best practice at the time they graduate.⁵ Some of this knowledge becomes out of date as new information and technology appear. In addition, dental practice relies heavily on clinical experiences that cannot be found in textbooks or research laboratories; hence dental continuing education is essential for any practicing dentist.⁵ The current practices of CPD in Sudan are fragmented and lacking coordination and most of the activities are organized by the CPD providers in a non-orchestrated fashion,⁶ hence many Sudanese dental professionals are not able to utilize the benefits of the continuing education programs. This study may guide the organizers of CPD programs to formulate appropriate approaches, to cover broad range of topics appropriate to the individual practice and patients' needs and to fill knowledge gaps.⁷

The aim of the study is to determine the participation pattern and assess the perception of practicing

dentists in the public sector in Khartoum state/Sudan towards Continuing Professional Development.

The study objectives are to determine the current participation of dentists working in the public sector in Khartoum State in Continuing Professional Development, to assess dentists' perceptions towards CPD, to find out the factors that lead to the selection of different CPD activities, and to find out the most common barriers to attending CPD activities.

MATERIAL AND METHODS

This was a cross-sectional study conducted in the public sector that providing dental services in Khartoum state /Sudan which includes: Public Dental Clinics in Khartoum State, Khartoum Dental Teaching Hospital, Hag Elsafi Specialized Dental Centre and Dental Department in Omdurman Hospital. All practicing dentists that have permanent registration in the Sudan Medical Council were included. Exclusions were the dentists who have leave during the time of data collection. The study was conducted among 280 dentists distributed as shown below in Table (1). The names of the dentists were obtained from a registered list from their place of work.

Table 1 Distribution of Dentists in Different Study Areas

Study Area	Number of Dentists
Public Dental Clinics in Khartoum State	158
Khartoum Dental Teaching Hospital	88
Dental Department in Omdurman Hospital	12
Hag Elsafi Dental Specialized Centre	22
Total	280

Self-administered questionnaire was used for data collection after obtaining written informed consent before filling the questionnaire. The questionnaire is part of a project conducted under the auspices of the Academy of Medical Royal Colleges (AoMRC) and funded by the General Medical Council (GMC) about effectiveness of CPD. The questionnaire consisted of four sections that were designed to investigate demographic characteristics of the dentists, participation pattern, perception and barriers to continuing professional development. The data was

analyzed using the Statistical Package for Social Sciences (SPSS) version 22 for Microsoft Windows. Association between variables presented as cross tabulation by using Chi square test. Ethical clearance was obtained from the ethical committee from Sudanese Medical Specialization Board; and approval from Research Department; Ministry of Health - Khartoum state, Approval from Oral Health Directorate, Ministry of Health - Khartoum State and from Khartoum Dental Teaching Hospital.



RESULTS

There were 280 dentists working in the public sector in Khartoum state. Out of which; seven refused to participate in the study. The response rate was 93.2%. The mean age group for the whole study

population was 34.2 years old. There were 26.4% male in comparison to 73.6% female. Forty nine point four percent of the dentists were married (Table 2).

Table 2 Personal Data

		Frequency	Percent
Gender	Male	69	26.4
	Female	192	73.6
Age	20 - 29 years	87	33.3
	30 - 39 years	107	41
	40 years and above	67	25.7
Mean age	34.24	-	-
Standard deviation	8.31	-	-
Marital status	Married	129	49.4
	Single	125	47.9
	Widow	2	0.8
	Divorce	5	1.9
Total		261	100

Dentists that work in the public sector were grouped according to their year of graduation from dental school in the following categories: before 2000, 2000-2010 and from 2011 and above. Years of experiences also grouped into three categories: less than 5 years, from 5-10 years and more than 10 years. Ninety one percent of the participants graduated from Sudanese dental colleges, with in which 62.8% graduated from Public Sudanese Universities.

Most of the dentists who work in the public sector (61.3%) were general practitioners, 26.8% were specialists and 11.9% were registrars. Fifty eight point two percent of the participants work in both public and private sectors at the same time, 41.8% work in the public sector only, while 30.3% work in addition to the public sector, in one of the academic institutions.

The results showed that 82% of the participants had done at least one CPD activity before. There was significant relation found between age, year of graduation, years of experiences and attending continuing educational activities (P value =0.001, 0.002, 0.001 respectively). As the age increased, years of experience increases, more continuing educational activities were attended.

It was also found that, there was significant relation between the academic degree and attendance of CPD (P value 0.001). The specialists were more likely to attend CPD activities than registrars and general practitioners.

The most CPD activity attended was lectures (86.2%). The least were reading journals (27.1%) and electronic learning (19.2%). (Figure 1)

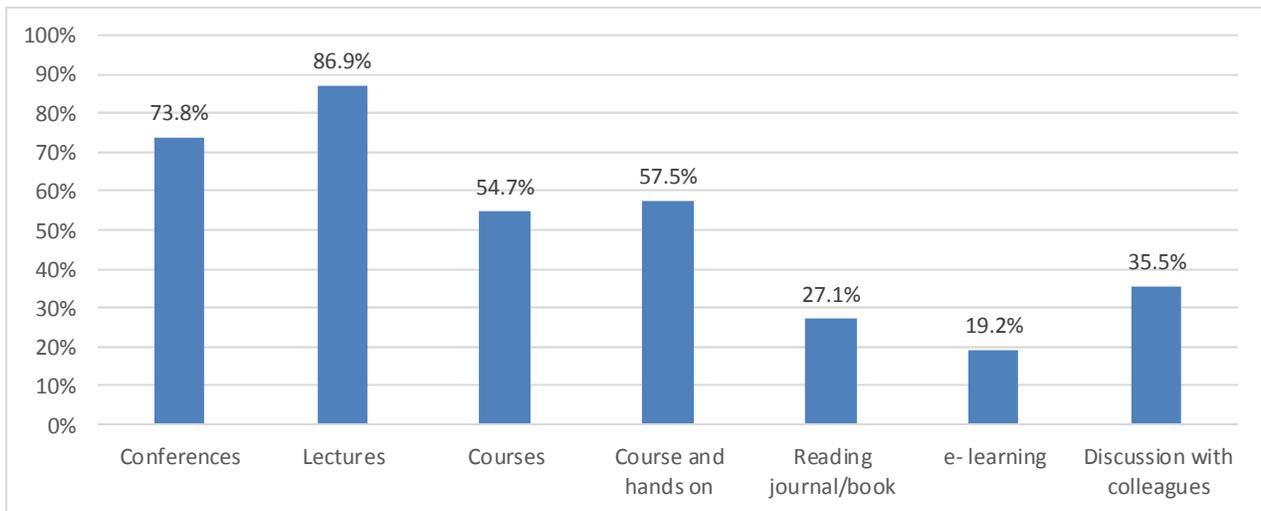


Fig 1 Activities of CPD Attended

The majority of the dentists 64.4% preferred to have topics in esthetic dentistry, 60.2% in implant and the least preferable topic was removable prosthesis (26.8%).

The majority (75.4%) preferred the courses with hands-on as a successful and effective mode of delivery to their favorite topics (Figure 2).

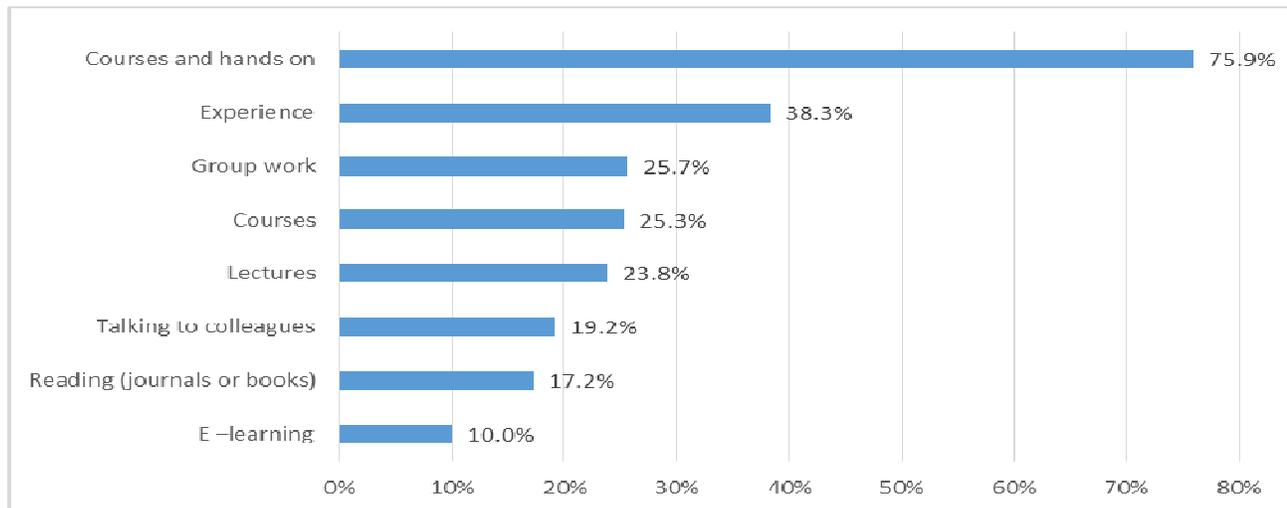


Fig 2 Preferred Mode of CPD Delivery

The most common factors that encouraging the dentists to joined one of the CPD activities, as the result showed was the topic itself 73.9 %, 59.8% for

knowledge gap. The least influencing factor was collecting CPD points (Figure 3).

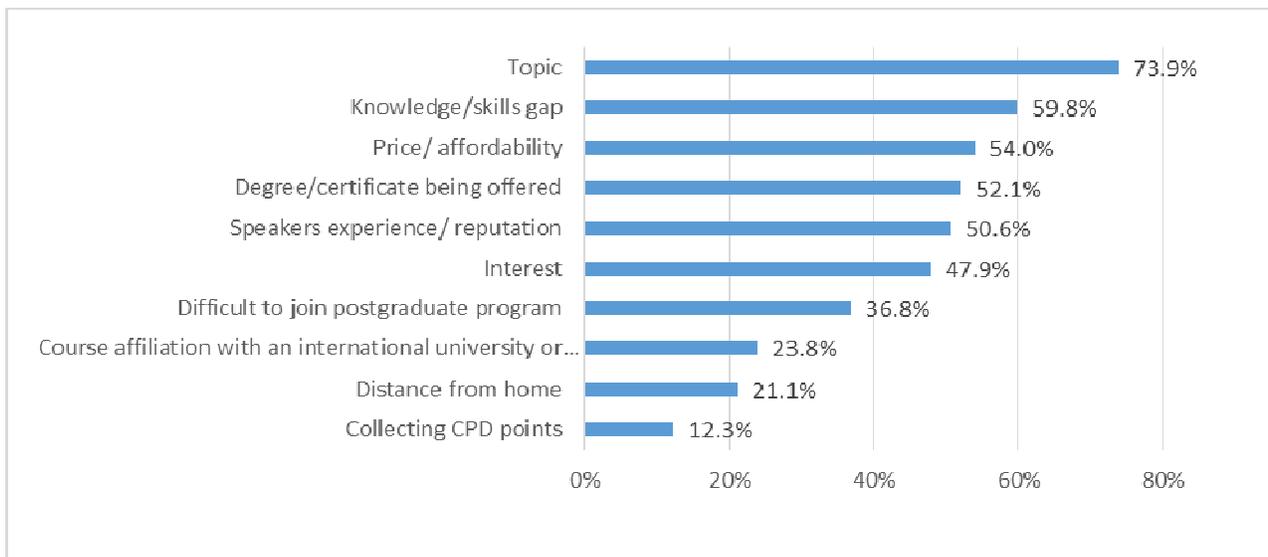


Fig 3 Factors Encouraging Dentists to Attend CPD Activity

Eighty five percent of the dentists admitted that there were barriers that prevent them from joining

CPD. The most common barriers were cost 82.1% and time 53.6% (Figure 4).

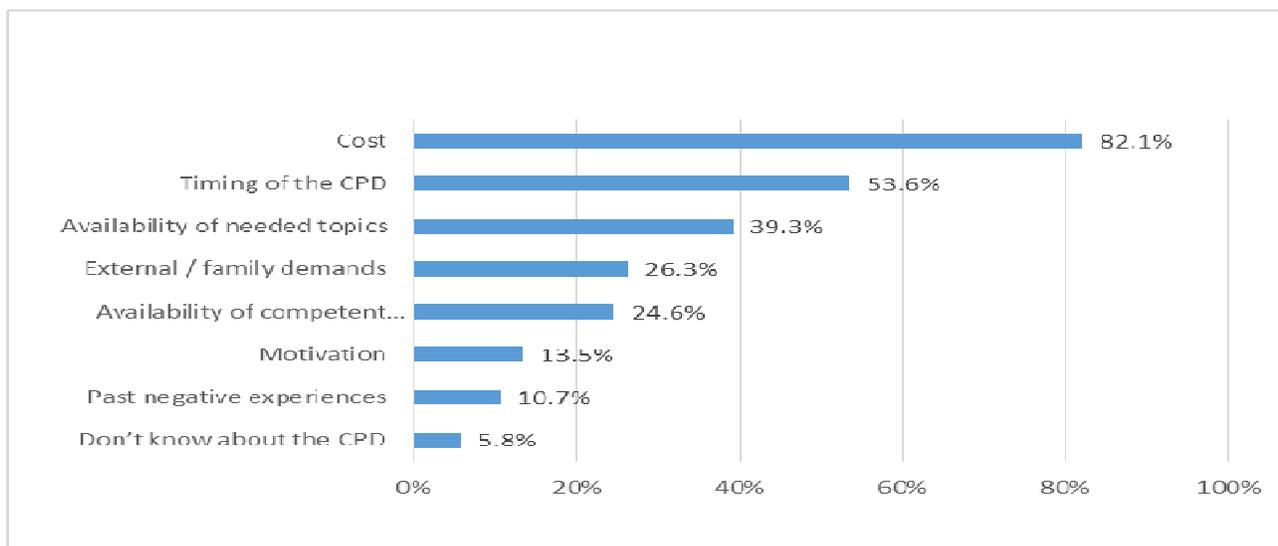


Fig 4 Barriers against Attending CPD

DISCUSSION

Continuing Professional Education has been considered as important and most effective way to ensure competence. In the field of dentistry there is continuous improvement in knowledge and techniques with huge pressure on the dentists to keep up with the new information. This needs an

effective continuing educational program to improve the efficiency of dentists and dental profession.⁵

From the results shown above 86.2% of the dentists attended at least one of the CPD activities before which indicated that dentists work in the public sector keen about continuing improvement and looking forward to update their knowledge and



practical skills. This result supported by what was found in the Review for Continuing Professional Development in Europe by Barnes et al who stated that the majority of dentists participated in at least one of the CPD activities.⁸ This result also agreed with that conducted in the UK in 2002, but that was due to the compulsory CPD for renewal of the license in UK.

The most common CPD activities attended was lectures followed by conferences, courses with hands on and then courses. This may be due to that the bulk of the participants were from Oral and Dental Health Directorate (158 dentists) and continuing education is part of its system where lectures were organized and implemented based on a questionnaire filled by the dentists to assess their training needs. This result supported by a study done in India that dentists preferred sponsored or free CPD activities.⁵ The result also echoed that in a survey done in Europe to assess the requirements for CPD system for graduated dentists in 2013.⁹ Reading journals and electronic learning were the least CPD activities used by the practicing dentists in the public sector. These findings orchestrated with the result from a survey done by Bullok in UK.¹⁰ Not like Asian dentists who preferred online and distance learning as a mean for continuing professional development.⁸ This may be due to that online courses could be hard to search as there was no consistency in the terms used by the sites, and most web pages did not state which dental boards would accept accreditation of this form of CPD.

Seventy four point three percent of the dentists thought that CPD should be compulsory for renewal of the license, same result found among dentists in Saudi Arabia¹¹ as well as dentists work in private sector in India in a study conducted in 2013.⁵ That might be due to the concept: introduction of a mandatory system of CPD is based on the argument that CPD will ensure dental practitioners' knowledge and skills are up-to-date and by implication that CPD contributes to high-quality dental care.⁸

Practicing dentists in the public sector in Khartoum state have the right to choose topics that they prefer as many countries have no regulations about the content of CPD and allow their dentists to freely

make their own choice of CPD topics. Some European countries mandate that certain core topics should be studied.⁸ The preferred topics were the clinical dental topics such as restorative dentistry and endodontics, and also preferred the new topics in the world of dentistry like implant and esthetic dentistry as those topics most commonly applied to now a day patients. Same results were found by A. Giriraju in 2013 in India⁵ and by P. Nayak in 2017.¹² This might be due to the dentists since their graduation were clinically oriented. On the other hand the financial outcome from the clinical work is more than that from preventive programs. Also esthetic dentistry and implant were not included in the curriculum of the under graduates.

Seventy five percent of our dentists preferred attending courses with hands on, as it gives a much clearer depiction of the clinical situation. Unlike dentists in the UK who preferred reading journals followed by attending lectures then courses with hands on in a study conducted in 2002 by M. Leggate¹ and E. Russell.¹³ In Australia Abbott, et al found that most of the dentists preferred courses and seminars,¹⁴ while in Prato, Italy most of the dentists read articles in Italian journals frequently together with books.¹⁵ Short course workshops are preferred among Iranian dentists as stated by Hamidollah Bahador, et al in their study in 2010.¹⁶

Dentists in the present study ranked the factors that encouraged them to participate in a CPD program as follow: 73.9 % for the topic itself, 59.8% for knowledge gap, 54 % for the price, 52.1% for the certificate being offered and 50.6% for the reputation of the speaker. In contrary to the result found in India were only 1.9% of the participants preferred to attend CPD programs conducted by a person of high reputation and 63.4% influenced by the cost.⁵ The least factor that influenced dentists to participate in a CPD program was to collect credit hours/point. This indicated that the primary professional responsibility is addressing one's learning needs in order to keep up-to-date and for the benefit of the patients. On the other hand, there might be lacks of understanding or agreement about the issue of accreditation.

Participants declared that cost is the most common barrier (82.1%) to attend CPD activities followed by lack of time (53.6%). Unlike a result from a study conducted by Nayak in 2015 who stated that lack of time is the main barrier against attending CPD program, while the participants were neutral about the cost.¹² Also Sudani D said the majority of the participants listed work schedule as major barrier.¹¹ In addition to that, most of the courses were not affordable by the dentists as the price of any continuing educational program determined by the providers themselves. On the other hand in Sudan, Considerable number of dentists in the public sector (58.2%) works in both private and public together so as to increase their income and improve their skills. As a result there is no or limited time to attend CPD program.

CONCLUSION

According to the previous results, it was recommended that Sudan Medical Council considers CPD as a prerequisite for recertification so as to align different range of experiences between the graduate dentists. Enhancing collaboration with different academic institutions in and outside Sudan will raise the quality of, and facilitate the process of continuing education. Importance of the presence of a body that controls and estimates the cost of continuing education; according to specific criteria; in the private training centers will facilitate engagement of dentists in different CPD programs. Moreover, attention should be given to reflection on learning needs while preparing and organizing CPD activities.

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