

Finding and selecting sources for the review

A literature (papers and reports) and internet search was carried out on the topic of CPD activity for dentists in Europe.

The Literature Search

Search strategy

As well as searching for papers in the science, medical and nursing databases (1-5), further databases were searched in order to capture educational aspects (6-7), any potentially relevant social sciences and psychology papers (8-10) and an academic literature search engine (11).

1. Web of Science
2. OVID Medline
3. EMBASE
4. CINAHL
5. SCOPUS (Life Sciences, Health Sciences, Physical Sciences and Social Sciences & Humanities)
6. ERIC (post 1996)
7. British Education Index (BEI)
8. ISI Web of Knowledge
9. ASSIA (post 1987)
10. PsychInfo
11. Google Scholar

All of these databases (1-11) were searched using the “keywords”:

- Dentists/dentistry/dental/dent* AND CPD
- Dentists/dentistry/dental AND CPD AND Europe
- Dental AND education
- Continuing AND dental AND education
- Dental AND education AND Europe
- Continuing AND dental AND education AND Europe

This search was complemented by one conducted by colleagues in Finland who searched using the following databases of academic papers (2) and systematic reviews (12-14):

2. OVID Medline
12. EBM Reviews - ACP Journal Club (1991 to December 2010)

13. EBM Reviews – Cochrane Database of Systematic Reviews (2005 to December 2010)

14. EBM Reviews - Database of Abstracts of Reviews of Effects (1st Quarter 2011)

Using the search terms:

- Education, Dental, Continuing/Legislation & Jurisprudence, Standards (8)
- Dentist* AND continuing education (12-14)

From these searches, the UK team initially identified 4,140 references and the Finland team found 195. Reference lists of relevant papers (see Inclusion Criteria below) were read and further potentially relevant papers were noted. Additional papers known to the DentCPD research team were also included.

The Internet search

In order to expand our results and ensure access to the most up-to-date CPD regulations and guidelines, an internet search was also carried out. Although Google is a popular search engine, different engines work in slightly different ways potentially retrieving different WebPages so a wider search was needed (1-5).

1. Google
2. Yahoo
3. Alta Vista
4. Bing
5. Dogpile

The same search terms as used by the UK team were employed, as well as additional searches substituting specific European country names instead of “Europe”.

A search of these five search engines highlighted 68 relevant European country specific sites, seven sites providing an overview of European information and one site listing worldwide dental organisations. The information was collated in a table which provides detail on CPD requirements by country. (Appendix 1)

Inclusion criteria

Of the total 4335 references (from the searches in the UK and in Finland), 2546 were duplicates leaving a total of 1789 potentially relevant papers. The references were exported to EndNote X3 (a software tool for managing bibliographies) where the titles and abstracts, if available, of each reference were scanned for relevance or further investigation.

Papers addressing specialties or focused on CPD for dental care professionals (DCPs) rather than general dentistry were excluded together with those centred on undergraduate education, vocational training or assessment rather than continuing education. Papers published before 1990 and those advertising courses or events were also excluded.

References selected for review included:

1. general papers on dental CPD (16)
2. opinion papers on dental CPD (3)
3. papers on dental CPD in Europe (13)
4. papers on attitudes and perceived CPD needs (14)
5. comparisons of different state/countries' CPD requirements for dentists (2)
6. papers of CPD participation by dentists (23)
7. papers on effect of CPD on dental practice (13)
8. papers on dental CPD delivery methods (28)

Papers were categorised by EB (UK) and TKS (FL). The total number of references judged to be relevant was 118 (minus duplicates). A further twenty six papers were gathered from citations and from personal collections. Of these 103 were read in full, abstracts only were available for 9 and 32 could not be accessed either online or through an interlibrary loan (see figure in Appendix 2). Of the papers read, 80 were empirical containing original data, eight were reports, seven were literature reviews, five were opinion pieces and twelve were topic summaries (see table in Appendix 3 for a full breakdown).

During the internet search, WebPages included for review were any European Dental organisation websites or pages that outlined national CPD guidelines for provision for any European country. WebPages were excluded if they were solely promoting available CPD courses, dental practices or for cosmetic dentistry only.