International Journal of Dental Research and Allied Sciences
2021, Volume 1, Issue 1, Page No: 52-60

Available online at: www.tsdp.net

ISSN: 3062-3502

Original Article

Evidence-Based Dentistry and Literature Retrieval Skills: A Comparative Study of Malaysian and Finnish Dental Students

Cao Jie[1], Duan Lin[1], Yan Rui[1], Jia Xiu[1], Wei Dong[1]*, Qin Lan[1]

[1]Hospital of Stomatology, Guanghua School of Stomatology, Guangdong Provincial Key Laboratory of Stomatology, Sun Yat-sen University, Guangzhou 510055, China.

***E-mail** ✉ wei.dong99@hotmail.com

Received: 18 June 2021; **Revised:** 24 August 2021; **Accepted:** 03 September 2021

ABSTRACT

In education, one of the core competencies is the capacity to locate, appraise, and integrate information—an aspect that holds particular importance in dental training. This study aimed to evaluate how dental students in Malaysia and Finland access scientific data and to compare their proficiency in information retrieval. Senior dental students (fourth and fifth years) from both Malaysia and Finland were invited to take part in the research. Data were collected through a structured, self-administered questionnaire that included questions about information source preferences, self-assessment of literature search abilities, and related knowledge.

A total of 226 respondents participated: 131 from Malaysia and 95 from Finland. Among students in both regions, oral surgery emerged as the specialty with the highest enthusiasm for information gathering. The three most frequently used information sources among Malaysian students were personal lecture notes, textbooks, and peers; while Finnish students relied primarily on colleagues, lecture notes, and national clinical guidelines. Knowledge regarding evidence-based practice was insufficient among both groups. Although most participants considered their literature search ability as fair to good, a higher percentage of Finnish students rated themselves as having good skills compared with Malaysian participants. While dental curricula in both nations include courses on information retrieval and compulsory research projects, the students seldom relied on the sources essential for evidence-based dentistry. Academic institutions should enhance training programs that encourage students to make more efficient use of reliable knowledge sources and to develop stronger skills in appraising scientific literature.

Keywords: Clinical appraisal, Evidence-based dentistry, Dental students, Information retrieval, Malaysia, Finland

How to Cite This Article: Jie C, Lin D, Rui Y, Xiu J, Dong W, Lan Q. Evidence-Based Dentistry and Literature Retrieval Skills: A Comparative Study of Malaysian and Finnish Dental Students. Int J Dent Res Allied Sci. 2021;1(1):52-60. https://doi.org/10.51847/w8Wma6Tsaq

Introduction

In the current era of widespread internet accessibility, both patients and dental professionals can easily obtain information about new treatment methods, dental materials, and global research. However, the sheer volume of available information often makes it challenging to determine its credibility, accuracy, and quality [1]. This difficulty led to the emergence of the concept of evidence-based medicine (EBM). In 1996, EBM was characterized as the careful integration of the most reliable clinical evidence with clinical expertise to reach patient-centered decisions that respect individual values and preferences [2]. Its primary goal was to reinforce the scientific foundation of medical practice and reduce uncertainty in clinical decision-making [3].

Similarly, evidence-based dentistry (EBD) applies these principles within dental care—combining clinical experience, current best evidence, and patient preferences [4]. To prepare capable clinicians, dental institutions worldwide have incorporated EBD into their curricula, enabling students to utilize it in patient management [5]. Research indicates that proper EBD

practice requires following five steps: formulating an answerable question; gathering high-quality evidence from electronic databases; evaluating that evidence for validity, reliability, and bias; integrating it with clinical judgment and patient needs; and finally, assessing the overall process and outcomes [6–9].

Research evidence can be obtained through multiple study types. Primary research encompasses original investigations such as cross-sectional surveys, longitudinal cohort analyses, randomized controlled trials, case-control studies, and case reports [8]. Secondary research includes systematic reviews, meta-analyses, critical appraisals, books, clinical guidelines, and relevant web-based resources [8].

Given the large volume of published material across various databases and the increasing complexity of critical appraisal, finding high-quality dental evidence has become progressively more demanding [10–12]. Studies from different regions indicate that while knowledge about evidence-based dental practice remains limited, attitudes toward its future use are generally positive [13, 14]. Time constraints, limited awareness, and inadequate access to resources have been identified as barriers among practitioners [13, 15, 16]. Therefore, undergraduate dental education plays a crucial role in teaching EBD principles and fostering lifelong learning habits [17, 18].

In Malaysia, the dental program spans five years—two preclinical and three clinical. During the second year, students complete a mentor-supervised project and submit a detailed report. The concept of evidence-based dentistry and research methods is introduced through both a compulsory research project and clinico-pathological case presentations (CPCP). In CPCP sessions, students select a clinical topic, conduct a targeted literature search, and present a related case report. The curriculum also mandates a two-year research project under faculty supervision. Within this timeframe, students attend twelve weeks of research methodology instruction, develop proposals, obtain ethical clearance, collect and analyze data, and present findings at a student conference. These tasks train them to identify, evaluate, and apply scientific evidence. Such experiences strengthen their competencies during the clinical years (third to fifth), when they perform dental procedures across multiple disciplines.

The dental degree program in Finland lasts five years. Within this curriculum, students complete a course titled Knowledge Management and Research, which focuses on developing scientific reasoning and introducing the foundations of research design. In addition, 10 to 20 weeks are allocated for specialized advanced studies in dental research. These studies are mandatory and involve an independent research project and the preparation of a concise master's thesis. Although students may pursue any topic of interest, most projects are selected from ongoing research within university departments or affiliated clinics, under the supervision of faculty researchers [19].

Clinical patient care forms a substantial component of the program from the third through fifth years, conducted primarily in university-based teaching clinics. After completing four academic years, students may also gain experience by practicing in public dental healthcare settings during their holidays. For Finnish graduates, a critical competency for qualification as a general dentist is the ability to retrieve information from diverse databases and to apply it analytically and scientifically when managing patient care [20].

Teaching philosophies, learning frameworks, and curricular structures often vary between European and Asian dental schools, potentially affecting students' approaches to locating and interpreting evidence-based data. Cultural variations may further shape these habits. Thus, comparing student groups from two geographically and educationally distinct countries can provide insight into how undergraduate dental training can be refined and harmonized internationally.

Both Malaysian and Finnish students are expected to have a solid grounding in evidence-based dentistry (EBD). Therefore, this study aimed to compare their information retrieval behavior and awareness of EBD. The objectives of this study were to:

- Identify the dental disciplines in which students most frequently sought scientific information and to highlight differences between the two groups;
- Examine how undergraduates in both nations obtained scientific data during coursework and clinical practice;
- Assess the level of awareness and understanding of EBD in relation to institution and academic year;
- Evaluate students' self-rated competence in literature searching according to dental school and study year.

Materials and Methods

A cross-sectional design was adopted to examine and compare the understanding of EBD concepts and literature search skills among dental undergraduates in Malaysia and Finland. Participants were fourth- and fifth-year students enrolled in one dental faculty in each country. Data collection took place in late 2018 through an anonymous self-administered survey distributed during scheduled lectures or

demonstrations. The target population comprised 235 registered students from both institutions.

The questionnaire used in this study was adapted from a prior Finnish survey [20] and revised to better suit an international context, accommodating differences in information systems and database access. It included questions on gender, research area, use of information sources within the previous six months (at school, home, or workplace), and self-evaluation of literature retrieval and EBD knowledge. No academic credit or reward was provided for participation. The finalized version of the survey is available in the Supplementary Material.

At the time, 145 students were registered in the Malaysian faculty, and 131 completed the survey, giving a 90% participation rate. In Finland, 95 of 102 students responded, yielding a 93% response rate.

Using an assumption that 40% of students would demonstrate good literature retrieval ability [20] and allowing for a 10% nonresponse, the required sample size was determined to be 145 Malaysian and 102 Finnish students, maintaining an allocation ratio of $n_1/n_2 = 1.4$. This provided a 90% statistical power to detect a 20% difference between the two populations at a significance level of 0.05.

Participation was voluntary and informed consent was obtained. Ethical approval was granted by the Research and Ethics Committee of the Malaysian faculty (MMMC/FOD/AR/EC-2018, issued on 12 September 2018). In Finland, according to the Ministry of Education and Culture, anonymous survey research does not require institutional ethics approval.

To determine the areas in which students most frequently searched for literature, they were asked:

"For which dental specialties have you sought scientific information from various sources? Choose three areas you have searched most often."

Options included: oral and maxillofacial surgery, oral pathology, endodontics, prosthodontics, periodontology/parodontology, cariology, orthodontics, oral radiology, implantology, pedodontics/pediatric dentistry, and other.

Two sets of questions were used to evaluate how often students utilized information sources:

(a) "How frequently have you used the following sources as a dental student within the last six months?"

(b) "How frequently have you used these sources at polyclinics (Malaysia) or dental clinics (Finland) within the last six months?"

Students rated their literature searching skills on a five-point scale, where 1 = excellent and 5 = poor. Responses were grouped as inadequate (1–2), moderate (3), and good (4–5). Additionally, three multiple-choice items were included to assess understanding of EBD principles. One question on "level of evidence" was omitted from analysis because several respondents misinterpreted it. The final analysis therefore included questions testing familiarity with the terms "meta-analysis" and "PICO."

Data analysis

Frequencies and percentages were calculated for key student attributes—namely gender, study year, and self-rated ability to retrieve scientific literature—for both Malaysian and Finnish cohorts. Percentage values were also applied to estimate how many students sought scientific information within each dental discipline. The principal outcome indicators were the types of information sources utilized and the level of awareness regarding evidence-based dentistry (EBD). These distributions were presented according to academic year and institution. Statistical differences in categorical variables were assessed using the chi-square test. All analyses were conducted with IBM SPSS Statistics version 25. The datasets supporting this study's conclusions can be obtained from the corresponding author upon reasonable request.

Results and Discussion

A combined total of 226 dental students from Malaysia and Finland participated **(Table 1)**. Females represented 65.3% of the total, and the number of fourth- and fifth-year students was nearly equal in both groups. Participants indicated which dental specialties they had recently searched for academic or clinical information **(Table 2)**. The majority—67.9% of Malaysian and 69.5% of Finnish students—had explored topics related to oral and maxillofacial surgery. More than half of the Malaysian group sought information in oral medicine, oral pathology, and endodontics, while Finnish respondents showed greater interest in cariology and prosthodontics.

Table 3 summarizes the frequency of use of various information sources both as university students and during clinical training. Almost all Finnish students (98%) reported consulting colleagues while on campus, compared to 74.8% among Malaysian students. Personal lecture notes were widely utilized by both groups (approximately 92%). When engaged in general study, Malaysians favored textbooks (77.3%) substantially more than Finnish students (36.8%).

Table 1. Frequency and percentage of gender, year of study, and perceived retrieval skills among Malaysian (n = 131) and Finnish (n = 95) dental students.

Characteristic	Malaysia	Finland	Total
	n (%)	n (%)	n (%)
Gender			
Male	41 (31.8)	36 (38.7)	77 (34.7)
Female	88 (68.2)	57 (61.3)	145 (65.3)
Academic Year			
Fourth Year	69 (52.7)	47 (49.5)	116 (51.3)
Fifth Year	62 (47.3)	48 (50.5)	110 (48.7)

(Note: Gender data missing for four participants.)

Table 2. Distribution (%) of most recent literature searches by dental specialty and institution (n = 226).

Specialty Searched	Dental School	
	Malaysia (n = 131)	Finland (n = 95)
Oral and Maxillofacial Surgery	67.9	69.5
Oral Medicine and Pathology	64.9	33.8
Endodontics	59.5	36.8
Prosthodontics	22.9	43.2
Periodontology	18.3	33.7
Cariology	6.1	44.2
Orthodontics	14.5	31.6
Oral Radiology	23.7	14.7
Implant Dentistry	11.5	2.1
Pediatric Dentistry	7.6	2.1
Other (Cosmetic, Aesthetic, Community)	2.3	0

Table 3. Reported daily or weekly use of different information sources among fourth- and fifth-year students from Malaysia (n = 131) and Finland (n = 95) during coursework and clinical training.

Information Source	When Studying in General				When Training at the Dental Clinic			
	Malaysia		Finland		Malaysia		Finland	
	Fourth Year (%) (n = 69)	Fifth Year (%) (n = 62)	Fourth Year (%) (n = 47)	Fifth Year (%) (n = 48)	Fourth Year (%) (n = 69)	Fifth Year (%) (n = 62)	Fourth Year (%) (n = 47)	Fifth Year (%) (n = 48)
Peers	76.8	72.6	97.9	97.9	81.2	75.8	97.9	93.8
Personal Study Notes	94.2	88.7	91.5	93.8	91.3	80.6	53.2	56.3
Current Clinical Protocols	20.3	9.7	63.8	79.2	17.4	21.0	53.2	68.8
General Textbooks	30.4	14.5	43.5	37.5	39.1	9.7	8.5	6.3
Dental Textbooks	82.6	59.7	21.3	52.1	92.8	71.0	8.5	10.4
PubMed/Medline	24.6	21.0	14.9	18.8	18.8	19.4	2.1	2.1
National Dental Publications	2.9	4.8	10.6	10.4	4.3	8.1	0	2.1
Miscellaneous Sources	1.4	4.8	0	2.1	0	0	0	2.1
Other Dental Publications	1.4	3.2	0	6.3	4.3	6.5	0	2.1

Additional Guidelines	0	0	0	2.1	0	0	0	2.1
Promotional Materials	18.8	29.0	0	8.3	13.0	16.1	0	2.1
Evidence-Based Medicine Journals	4.3	4.8	0	4.2	2.9	8.3	0	2.1
Cochrane Database	5.8	6.5	2.1	8.3	5.8	3.2	0	4.2

During clinical practice, Finnish students most often sought information from colleagues (95.8%), national clinical guidelines (61.5%), and personal lecture notes (54.7%). In contrast, Malaysian participants primarily relied on personal lecture notes (86.2%), textbooks (82.4%), and colleagues (78.6%).

An additional EBD knowledge test was administered **(Table 4)**. A much larger proportion of Finnish fourth-year students correctly defined "meta-analysis" compared with Malaysians (78.7% vs. 26.1%; $p < 0.001$). Among fifth-year students, Malaysians slightly outperformed their Finnish counterparts (67.7% vs. 60.4%; $p = 0.007$). Within-country comparisons also revealed significant contrasts: in Malaysia, fifth-year students had greater understanding than fourth-years ($p < 0.001$), whereas in Finland, fourth-year students scored higher ($p = 0.007$).

Table 4. Frequency and percentage distributions of EBD knowledge among fourth- and fifth-year dental students from Malaysia (n = 131) and Finland (n = 95).

Knowledge about EBD Concepts	**Fourth Year**		**Fifth Year**	
	Malaysia (%)	Finland (%)	Malaysia (%)	Finland (%)
What is meta-analysis?				
A statistical approach combining and analyzing data from multiple studies using quantitative techniques	18 (26.1)	37 (78.7)	42 (67.7)	29 (60.4)
A method for assessing the quality of systematic reviews	2 (2.9)	0	9 (14.5)	10 (20.8)
A summary of studies with evident clinical relevance	0	8 (17.0)	0	14 (14.7)
I am unsure	49 (71.0)	2 (4.3)	11 (17.7)	5 (5.3)
What is PICO?				
An acronym outlining components of effective clinical questions	2 (2.9)	0	8 (12.9)	4 (8.3)
An acronym for a collaborative group establishing treatment guideline criteria	2 (2.9)	3 (6.7)	8 (12.9)	5 (10.4)
An acronym for phases of evidence-based treatment in dental practice	9 (13.2)	0	9 (14.5)	1 (2.1)
I am unsure	55 (80.9)	42 (93.3)	37 (59.7)	38 (79.2)

Overall, both groups demonstrated limited familiarity with EBD concepts. Only 14 students (6.2%) answered the PICO question correctly, though a slightly higher number of Malaysians recognized the correct meaning. Understanding of PICO remained weak in both academic years **(Table 4)**.

Respondents also provided a self-assessment of their literature-search skills. **Figure 1** illustrates perceived ability levels by country and year. In total, 66 students (29.2%) rated their skills as good or excellent. Although most participants reported at least fair ability, Finnish students more frequently described their competence as good compared with Malaysian peers (fourth-year: 57.4% vs. 11.6%; fifth-year: 43.8% vs. 16.1%; $p < 0.001$ for both comparisons).

Within Malaysia, there was no notable difference between study years ($p = 0.634$). In Finland, fourth-years tended to rate themselves as good (57.4%) or adequate (36.2%), whereas fifth-years were more self-critical (good 43.8%, adequate 56.3%), with this variation reaching significance ($p = 0.036$). In total, 35.9% of Malaysians described their skills as mediocre or poor, compared with only 3.2% among Finnish respondents.

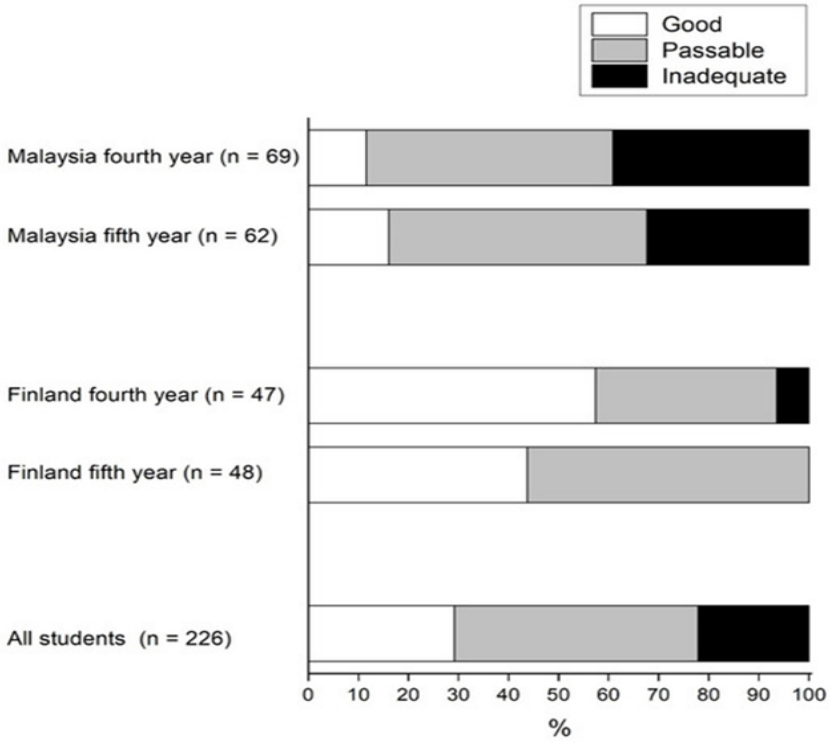

Figure 1. Percentage distribution of students' self-rated literature retrieval skills by institution and year of study.

The integration of high-quality evidence from scientific research has become increasingly essential in modern dentistry. This study examined how dental students from Malaysia and Finland obtain scientific information and assessed their familiarity with different sources and retrieval methods. In both settings, students most frequently searched for material related to oral and maxillofacial surgery. Among Malaysian students, the most utilized sources were personal lecture notes, textbooks, and colleagues, whereas Finnish students primarily relied on colleagues, lecture materials, and national clinical guidelines. Participants from both institutions admitted to being relatively unfamiliar with the terminology of evidence-based dentistry (EBD), though many demonstrated awareness of meta-analysis concepts. Notably, a greater share of Malaysian students rated their literature search ability as average or poor compared with Finnish respondents.

Differences in search tendencies across dental schools appear to reflect curricular variations. Malaysian students often explored topics associated with their exit examinations and competency assessments. In Finland, cariology is taught as an independent field alongside endodontics and pedodontics, while in Malaysia, its elements are integrated across oral pathology, conservative dentistry, pediatric dentistry, and community dentistry. Despite these structural differences, oral and maxillofacial surgery (OMFS) remained the most popular area for information retrieval in both cohorts—a finding consistent with a previous Finnish investigation [20]. This suggests that the OMFS curriculum encourages students to actively engage with diverse knowledge sources.

The reliance on textbooks and lecture notes among Malaysian students can be attributed to institutional practices. Instructors distribute materials that incorporate current clinical guidelines, and students further compile their own versions of lecture notes. This habit may explain their heavier dependence on such resources and their emphasis on updated recommendations. When personal notes are inaccessible, Malaysian students can retrieve academic content through computers available in clinical areas or library facilities, where they also conduct research. Furthermore, the library assists with article acquisition services if digital access is limited.

In contrast, Finnish students often depend on the national guideline database (https://www.kaypahoito.fi/en/), recognized as the country's Gold Standard for evidence-based practice. These guidelines, founded on validated scientific literature, are also incorporated into university teaching materials. Each clinical workstation is equipped with a personal computer, providing students with immediate access to online databases and digital references. Consequently, printed sources such as textbooks are less favored. In both educational systems, consulting

peers is considered an important learning strategy and is actively encouraged by Finnish faculty members.

The findings indicate that dental students in both countries seldom read primary scientific literature, a cornerstone of evidence-based practice. Similar outcomes have been reported across other health disciplines [21–23]. Several factors may contribute to this issue, such as the complexity of scientific terminology, limited statistical understanding, difficulty identifying clinically relevant findings, or the sheer volume of publications that students must navigate [22, 24]. Prior research also highlights that restricted access to evidence-based databases and insufficient training remain obstacles to EBD implementation [13–15]. Nonetheless, students generally express positive attitudes and an intention to apply EBD principles in their future clinical practice.

Malaysian students may have performed better in some areas due to their involvement in mandatory research projects, which require extensive literature engagement. Although they employed the PICO framework to formulate research questions, many were unaware of its full definition. The fifth-year students outperformed their fourth-year peers, likely because they complete and defend their research projects supported by comprehensive literature searches. It is concerning that Finnish students showed weak understanding of PICO, despite strong recognition of meta-analysis. This might be explained by the early placement of EBD-related coursework in the preclinical years, leading to knowledge attrition over time. Emphasizing PICO principles consistently throughout the curriculum could help reinforce these essential skills. However, it should be noted that the current survey did not directly measure EBD application in clinical settings.

Malaysian students generally rated their ability to retrieve information as moderate or poor. These students are required to complete either clinical or non-clinical research projects that demand extensive review of current literature. After undertaking such research, they may feel their skills are insufficient, likely due to difficulties in selecting appropriate keywords or databases to locate relevant information. Therefore, supervisors should provide guidance on efficient search strategies and proper data retrieval methods. It is also possible that some students are overly self-critical, perceiving themselves as less capable than they actually are.

In contrast, Finnish students described their literature search competence as satisfactory to good, most likely because of their consistent exposure to database-based research throughout their training. Their self-assessment may also reflect their experience in retrieving material to solve clinical or practical problems rather than searching for scientific evidence. Comparable to the Malaysian system, all Finnish dental students also complete an independent research project and a master's thesis during their program [20]. Additionally, courses on literature retrieval, academic writing, communication, and data analysis are introduced in the first and second years, which may explain the stronger outcomes observed in this survey.

The Malaysian dental curriculum spans five years and remains largely subject-based, though many schools are shifting toward integrated curricula. The first two years consist of preclinical training, followed by three clinical years, during which students provide treatment under supervision across different specialties. The concept of research is introduced early through a mentor-supervised project (MSP) in the preclinical phase. During the clinical stage, students conduct a more extensive elective research project, beginning in year four and concluding in year five. This early introduction to structured inquiry helps students enhance their data-gathering and analytical skills. Moreover, students frequently perform literature searches to prepare for seminars and case-based learning sessions.

In Finland, dental education lasts 5.5 years, comprising two preclinical and three and a half clinical years, closely resembling the Malaysian framework. The final six months consist entirely of clinical training in municipal dental clinics, supervised by senior practitioners. The curriculum emphasizes cross-disciplinary studies and continuous clinical integration. While both systems include components on literature retrieval and scientific writing, their duration and content differ. In Finland, a mandatory Knowledge Management and Research course is introduced during the first preclinical year. This module covers scientific writing (including report structure, referencing, and presentation of results), literature search strategies (use of bibliographic databases and library systems), data analysis (introductory statistics and software), and scientific communication (journal publishing, ethics, and bibliometrics). The early inclusion of this comprehensive course ensures that students gain foundational skills before entering subject-specific clinical training. Consequently, Finnish dental students develop greater confidence in evaluating research papers and applying scientific evidence throughout their studies.

Participation rates were excellent in both institutions. One limitation of this study is that it was conducted within a single dental school in each country, and thus

findings may not represent all educational settings. Despite this limitation, the results provide valuable direction for developing educational interventions aimed at enhancing critical appraisal and evidence-based learning in dental curricula.

Conclusion

This comparative investigation of dental programs in two culturally distinct countries offers meaningful insights into the strengths and weaknesses of senior dental students regarding information retrieval and awareness of evidence-based dentistry (EBD). It was observed that participants from both nations rarely searched for or read primary scientific articles. The methods of acquiring information, however, differed notably: Finnish students primarily used colleagues, lecture materials, and clinical guidelines, whereas Malaysian students depended on lecture notes, textbooks, and peer consultation.

In both dental schools, awareness of EBD and meta-analysis concepts needs further improvement. While Finnish students rated their retrieval skills as fair to good, Malaysian students generally considered theirs average or weak. It is noteworthy that both curricula include research projects and formal instruction in literature search techniques, yet the most reliable databases—such as Medline, the Cochrane Library, and peer-reviewed journals—were not commonly used by students.

Recent publications and up-to-date scientific literature should form the cornerstone of literature reviews and guide the evaluation of treatment approaches. Academic institutions must take responsibility for equipping future dental professionals with knowledge management skills to navigate the expanding body of dental research. Ultimately, dental practitioners should possess more extensive knowledge than their patients and be capable of supporting their clinical decisions with scientifically validated evidence.

Acknowledgments: None

Conflict of Interest: None

Financial Support: None

Ethics Statement: None

References

1. Dhar V. Evidence-based dentistry: an overview. Contemp Clin Dent. 2016;7(3):293–4.
2. Sackett DL, Rosenberg WMC, Gray JAM, Haynes RB, Richardson WS. Evidence based medicine: What it is and what it isn't. BMJ. 1996;312(7023):71–2.
3. Rosenberg WM, Sackett DL. On the need for evidence-based medicine. Therapie. 1996;51(3):212–7.
4. Winning T, Needleman I, Rohlin M, Carrassi A, Chadwick B, Eaton K, et al. Evidence-based care and the curriculum. Eur J Dent Educ. 2008;12(Suppl 1):48–63.
5. Karimbux NY. Evidence-based dentistry. J Dent Educ. 2013;77(1):123–7.
6. Niederman R, Badovinac R. Tradition-based dental care and evidence-based dental care. J Dent Res. 1999;78(7):1288–91.
7. Sutherland SE. The building blocks of evidence-based dentistry. J Can Dent Assoc. 2000;66(5):241–4.
8. Bayne SC, Fitzgerald M. Evidence-based dentistry as it relates to dental materials. Compend Contin Educ Dent. 2014;35(1):18–24.
9. Brignardello-Petersen R, Carrasco-Labra A, Glick M, Guyatt GH, Azarpazhooh A. A practical approach to evidence-based dentistry. J Am Dent Assoc. 2014;145(11):1105–7.
10. Davis Sears E, Burns PB, Chung KC. The outcomes of outcome studies in plastic surgery: a systematic review of 17 years of plastic surgery research. Plast Reconstr Surg. 2007;120(7):2059–65.
11. Shah HM, Chung KC. Archie Cochrane and his vision for evidence-based medicine. Plast Reconstr Surg. 2009;124(3):982–8.
12. Clarkson JE, Bonetti D. Why be an evidence-based dentistry champion? J Evid Based Dent Pract. 2009;9(3):145–50.
13. Yusof ZYM, Han LJ, San PP, Ramli AS. Evidence-based practice among a group of Malaysian dental practitioners. J Dent Educ. 2008;72(11):1333–42.
14. Gupta M, Bhambal A, Saxena S, Sharva V, Bansal V, Thakur B. Awareness, attitude and barriers towards evidence based dental practice amongst practicing dentists of Bhopal city. J Clin Diagn Res. 2015;9(7):ZC49–54.
15. Rajagopalachari U, Puranik M, Rajput S. Knowledge, attitude, and practices toward evidence-based dentistry among dentists of Bengaluru city. J Indian Assoc Public Health Dent. 2017;15(3):239–44.

16. Iqbal A, Glenny AM. General dental practitioners' knowledge of and attitudes towards evidence-based practice. Br Dent J. 2002;193(10):587–91.
17. Azarpazhooh A, Mayhall JT, Leake JL. Introducing dental students to evidence-based decisions in dental care. J Dent Educ. 2008;72(1):87–109.
18. Forrest JL. Treatment plan for integrating evidence-based decision making into dental education. J Evid Based Dent Pract. 2006;6(1):72–8.
19. Nieminen P, Sipilä K, Takkinen HM, Renko M, Risteli L. Medical theses as part of the scientific training in basic medical and dental education: Experiences from Finland. BMC Med Educ. 2007;7(1):51.
20. Nieminen P, Virtanen JI. Information retrieval, critical appraisal and knowledge of evidence-based dentistry among Finnish dental students. Eur J Dent Educ. 2017;21(4):214–9.
21. Munn J, Small J. What is the best way to develop information literacy and academic skills of first year health science students? A systematic review. Evid Based Libr Inf Pract. 2017;12(3):56–94.
22. Eldermire ERB, Fricke S, Alpi KM, Davies E, Kepsel AC, Norton HF. Information seeking and evaluation: a multi-institutional survey of veterinary students. J Med Libr Assoc. 2019;107(4):515–26.
23. Kingsley K, Galbraith GM, Herring M, Stowers E, Stewart T, Kingsley KV. Why not just Google it? An assessment of information literacy skills in a biomedical science curriculum. BMC Med Educ. 2011;11(1):17.
24. Yudin ZM, Ali K, Ahmad WMAW, Ahmad A, Khamis MF, Monteiro NABG, et al. Self-perceived preparedness of undergraduate dental students in dental public universities in Malaysia: a national study. Eur J Dent Educ. 2019;24(2):163–8.