

Knowledge, Attitude and Perceived Barriers Towards Evidence Based Practice Among Dentists In Kanpur City: A Questionnaire Based Study

Dr. Smriti Tripathi

(MDS Pursuing- Post graduate 3rd year), Department of Public Health Dentistry

Dr. Nidhi Pruthi Shukla

(Prof. and Head of Department), Master of Dental Surgery (MDS), Department of Public Health Dentistry

Dr. Rohma Yusuf

(Senior Lecturer), Master of Dental Surgery (MDS), Department of Public Health Dentistry

Dr. Divya Kashyap

(Senior Lecturer), Master of Dental Surgery (MDS), Department of Public Health Dentistry

Dr. Saumya Nandan

(MDS Pursuing- Post graduate -3rd year), Department of Public Health Dentistry

Dr. Raman Jayant

(MDS Pursuing- Post graduate 3rd year), Department of Public Health Dentistry

Abstract

Background: Dentistry has undergone a number of new developments that have forced it to advance based on evidence. The finest available research evidence is gathered to support good and successful dental practice, not on isolated pieces of evidence. This strategy creates a link between research and routine patient care. **Aims & objectives:** To assess and compare the knowledge, attitude, and perceived barriers toward evidence based practice (EBP) among faculty members associated with dental college and private practitioners in Kanpur city. **Materials & Methods:** A cross sectional-survey was conducted among 204 dentists (*faculty members associated with these two private dental colleges and private practitioners*) in kanpur city using a convenience sampling method. Data was collected through a validated, structured questionnaire which included demographic data, awareness, attitude, practices and barriers regarding EBD among the dentists. **Results:** In our study, based on the pre described grading for knowledge score, among the faculty members, 10(4.9%) showed poor knowledge, 17(8.3%) had fair whereas, only 67(32.8%) had good knowledge regarding EBP and for private practitioners, 66(32.4%) showed poor and 24(11.8%) fair knowledge regarding EBP and 20(9.8%) respectively. Among the participants, 55.4% of the participants showed positive attitude and 70(34.3%) practice EBD sometimes whereas, lack of access to full text articles was the most common barrier as reported by 131(64.2%) and 19(9.3%) in the group 1 and 2 respectively. **Conclusion** The majority of the dentists in our survey had a good knowledge score but still understanding of the statistical terms used in EBP was limited whereas, dental professionals also showed a positive attitude towards EBP, but there are still some challenges to practice Evidence Based practice.

Keywords: Evidence-based dentistry, Scientific evidence, Decision making

Introduction

Dental professionals must constantly update their knowledge and expertise about new diagnostic and treatment approaches to provide the patients with optimum treatment needed. Evidence-Based Practice (EBP) seeks to bridge the gap between recommended practises and actual patient treatment.¹

The finest available research evidence is gathered to support good and successful dental practise, not on isolated pieces of evidence. This strategy creates a link between patient care on a daily basis and research. EBP is a patient-centered method of clinical decision-making that results in the best care.^{2,3}

One of the main purposes of evidence-based dentistry is an orientation of selection and use of reliable information from a wide number of published articles, books, and references is one of the fundamental goals of evidence-based dentistry.⁴

Dentists can use EBP to enhance the quality and outcomes of therapy in accordance with clinical outcomes; additionally, they will be able to assess the benefits and drawbacks of different treatment modalities after determining the reliability of the available data. Additionally, patients' faith in dental services may increase if they are aware that their treatments are supported by the best available evidence. As a result, EBP is widely used and regarded as essential in treating patients on a regular basis.⁵

The EBP helps the patient to receive improved treatment. By using EBP, patients can be informed about updated treatment options and preventative measures like applying fluoride, using pit and fissure sealants, etc.

The more effective treatment modalities and techniques will eventually be adopted by clinician using the evidence-based approach, improving patient outcomes. Patients are also easily convinced by the professionals' evidence.⁶

No such studies to our knowledge have been conducted in Kanpur city. Therefore, this study was conducted to determine the knowledge, attitude and practices of dentists regarding EBP in Kanpur city

Aim

The aim of this study is to assess and compare the knowledge, attitude, and perceived barriers toward EBP among faculty members associated with dental college and private practitioners in Kanpur city.

Objectives of the Study

- To assess the knowledge, towards evidence based dental practice among dentists of Kanpur city.
- To assess the attitude towards evidence based dental practice among dentists of Kanpur city.
- To assess the practice and barriers towards evidence based practice among dentists of Kanpur city.
- To assess and compare the knowledge, attitude and barriers among the two groups that were faculty members associated with dental college and private practitioners of Kanpur city

Material and Methods

It is a cross-sectional questionnaire-based survey conducted among 204 faculty members associated with dental colleges and private practitioners of Kanpur city. The study was conducted over a period of 3 months from October to December 2021.

The study proposal was submitted for approval and clearance to the Institutional Review Board of Rama Dental College, Hospital and Research Centre, prior to the start of the study. The study protocol was reviewed by the Ethical Committee and the ethical clearance was granted for the same. All participants who were willing to take part in the study provided their written informed permission.

A pilot research was carried out to check for the feasibility of the questionnaire and for its validity as well as to test its reliability of the developed questionnaire. The questions were created, and with the assistance of experts, they were examined for content validity. Face validity of the questionnaire was tested by the faculty in the department. Twenty subjects were selected randomly to assess the test-retest reliability of the questionnaire using Cronbach's alpha coefficient (0.85).

Sample size and sampling method

According to a previous study conducted by *Manoj Gupta et al.*⁷ the mean knowledge score was 5.03 ± 1.34 with effect size of 0.35, power 0.8(80%), and confidence level of 0.05. The sample size was calculated by G power software, the calculated sample size was 204.

Sampling method- The present study was conducted among 204 dentists of Kanpur City through Convenience sampling method.

Inclusion criteria

- The faculty members associated with private dental colleges
- Private practitioners with either BDS or MDS degree or who had at least one year of clinical practice.

Exclusion criteria

- Dentists who were not willing to participate and for whom informed consent was not available were excluded from the study.
- The survey did not include dentists who work in the government setting.

Collection of data

The subjects were interviewed by the investigator and the following data was collected through a validated, structured questionnaire which included: Demographic details included name, age, gender, participants qualification, participants group and clinical experience. Awareness of EBP among dentists consisted of four questions and knowledge regarding terms related to EBP consisted of 12 questions. The correct answer for knowledge questions were awarded as 1 mark each and 0 for incorrect answer (minimum score=0 and maximum =12). Knowledge was rated as poor, fair and good based upon the number of corrected responses where, scoring was poor: 0-4, fair: 5-8, good: 9-12.

Attitude regarding evidence based dentistry was assessed using five questions. Dentists were asked to respond to each question using a five-point Likert scale: strongly disagree, disagree, neither agree nor disagree, agree and strongly agree. For all attitude-based questions, strongly disagree and agree received one mark, while uncertain, disagree and strongly disagree received zero. Strongly disagree and agree earned one mark while uncertain, disagree, and strongly disagree received zero marks for all attitude-related questions with the *exception* of one, which was based on the practicality of EBP. Scores were based

on the number of answers indicating positive attitude of the participants. Those who scored >60% answers were considered as having positive attitude while score $\leq 60\%$ corresponded to negative attitude.

Practices and barriers regarding EBD among dentists consisted of three questions regarding practices of EBD among dentists and eight questions of Barriers regarding EBD among dentists.

A validated structured questionnaire was given to the participants by a single examiner, and they were instructed to answer each item in accordance with the format specified in the questionnaire.

Statistical analysis

The data was entered in Microsoft Excel and was analysed by using statistical software Statistical Package for the Social Sciences (SPSS) version 23.0 for Windows. All study variables were described by using descriptive statistical methods calculation of Frequencies, Percentages, and Mean. Data were analyzed by using, *Chi Square Test*. All values were considered statistically significant for a value of $p \leq 0.05$.

Results

The study population in this study was divided into four age groups- less than 30, 31-40, 41 and above. Out of 204 dentists, highest number of dentist that is 74(36.3%) belonged to 31-40 years age group followed by 71(34.8%) dentist in 41 and above of age group, 59(28.9%) from less than 30 years of age group. Among them, 115(56.4%) were males and 89(43.6%) were females. Among participants qualification, 109(53.4%) were BDS and 95(46.6%) were MDS. Among participants group, faculty members associated with dental college were 94(46.1%) and private practitioners were 110(53.9%). Participants with 1-5 yrs of experience were 73(35.8%), with 6-10 yrs of experience 48(23.5%), 11-15 years of experience 44(21.6%) and with more than 15 yrs of experience 39(19.1%). (**Table 1**)

This table shows the distribution of study participants according to difficulty in clinical decision making. Among all the participants, 37(18.1%) of faculty members associated with dental college (Group1) and 66(32.4%) of the private practitioners (Group2) do encounter difficulty in clinical decision making while 57(27.9%) of the group 1 and 44(21.6%) of the group 2 do not encounter difficulty in clinical decision making. (**Figure-1**)

Among the participants the most common source of information for clinical decisions was the internet search with 46(22.5%) and 62(30.4%) of the group 1 and group 2 respectively followed by referring a textbook 77(37.7%) than asking a friend or colleague 33(16.2%) and least one was the other sources with 31(15.2%).

Among all the participants, 140(68.6%) of the participants were aware or heard of the Evidence based dental practice. Among the both groups, 81(39.7%) in group 1 and 59(28.9%) in the group 2 were aware of the Evidence based dental practice and 64(31.4%) were unaware of the Evidence based dental practice. (**Figure -2**)

A significant number of participants 134(65.7%) of the participants had knowledge of the term EBD with 76(37.3%) and 58(28.4%) in group 1 and 2 respectively. Among both the groups, Group 1 76(37.3%) had more knowledge of the term EBP while, 58(28.4%) of the group 2. Among all the participants, group 1 were more familiar with the terms related to EBD. Expert opinion was the most familiar term 87(42.6%) and 85(41.7%) among group 1 and 2 respectively and least familiar term was systematic reviews & meta-analysis among them with 46(22.5%) and 24(11.8%) among group 1 and 2 respectively and critical appraisal with 50(24.5%) and 23(11.3%) in group 1 and 2 respectively.

It was found that among the participants, 105(51.5%) of the participants agreed that it is impractical to follow Evidence based Practice every day, followed by 103(50.5%) EBP will help in clinical decision making, 99(48.5%) agreed that EBP improve quality of patient care and 74(36.3%) EBP should be an integral part of undergraduate dental curriculum and 73(35.8%) least number of the participants agree that EBP will reduce health care costs. *(Figure 3)*

Among all the participants, 112(54.9%) of the participants rarely practice EBD whereas, 70(34.3%) of the participants practice EBD sometimes with 25(12.3%) and 45(22.1%) in the group1 and group 2, 15(7.4%) followed by most of the time and 7(3.4%) almost always. *(Figure 4).*

Among the participants, lack of access to full text articles was the most common barrier as reported by 131(64.2%) and 19(9.3%) in the group 1 and 2 respectively.

Based on the pre described grading for knowledge score, 87(42.6%), 41(20.1%) and 76(37.3%) showed good, fair and poor knowledge respectively. Among the faculty members associated with dental college, 10(4.9%) showed poor knowledge, 17 (8.3%) had fair and 67(32.8%) had good knowledge regarding EBP while for private practitioners, 66(32.4%) showed poor and 24(11.8%) fair and 20(9.8%) good knowledge regarding EBP. Participants qualification, participants group and experience were found to be statistically significant demographic characteristics for knowledge regarding EBP. The good knowledge score was found to be more among MDS 63(30.9%) as compared to BDS 24(11.8%), good knowledge score was found to be more among group 1 with 67(32.8%) as compared to group 2 with 20(9.8%) and clinical experience of 6-10 years experience 30(14.7%) were having more good knowledge score and least was found to be in 11-15 years experience 14(6.9%) with the p value of 0.000, 0.000, and 0.039 respectively. *(Table 2)*

Among both the groups, 76(37.3%) and 58(28.4%) were aware of the term EBP respectively. Among all the participants, group 1 were more familiar with the terms related to EBP. Expert opinion was the most familiar term 87(42.6%) and 85(41.7%) among group 1 and 2 respectively and least familiar term was systematic reviews & meta-analysis among them with 46(22.5%) and 24(11.8%) among group 1 and 2 respectively and critical appraisal with 50(24.5%) and 23(11.3%) in group 1 and 2 respectively. The difference was noted to be statistically significant with respect to the two groups.

Among the participants, 55.4% of the participants showed positive attitude towards and 44.6% showed negative attitude towards EBP. Advancing age, gender, participants qualification, participants group and experience were found to be statistically significant demographic characteristics regarding attitude towards EBD. The attitude was found to be more positive 50(24.5%) among the age group of 41 and above years, among males 80(39.2%), among MDS 74(36.3%), among group 1, 59(28.9%) and with experience of 1-5 years 35(17.2%) with the p value of 0.007, 0.000, and 0.000, 0.050 and 0.004 respectively. *(Table 3)*

Among all the participants, 70(34.3%) of the participants practice EBP sometimes with 25(12.3%) and 45(22.1%) in the group1 and group 2, 15(7.4%) followed by most of the time and 7(3.4%) almost always. Among the participants, 112(54.9%) of the participants rarely follow EBP. It was found that practicing EBP in clinical practice and participants group were found to be statistically significant with p value of 0.058. *(Table 4)*

Among all the participants, statistically significant difference was found among the three groups with regard to perceived major barriers in practicing evidence-based dentistry. Lack of access to full text articles was the most common barrier as reported by 131(64.2%) and 19(9.3%) in the group 1 and 2 respectively. Lack of interest, lack of access to internet connection, to lack of access to full text articles, lack of skill to appraise scientific journal and lack of skill to appraise scientific journal were found to be significant barriers among the three groups with p value of 0.029, 0.049, 0.000 and 0.003 respectively. *(Table 5)*

Table 1- Distribution of study participants according to demographic data of study participants

Characteristics		Distribution of respondents(n=204) n(%)
Age	Less than 30	59 (28.9%)
	31-40	74 (36.3%)
	41 and above	71 (34.8%)
Gender	Male	115(56.4%)
	Female	89(43.6%)
Participants qualification	BDS	109(53.4%)
	MDS	95(46.6%)
Participants group	Faculty members associated with dental college (Group1)	94(46.1%)
	Private practitioners (Group2)	110(53.9%)
Clinical experience	1-5 yrs	73(35.8%)
	6-10 yrs	48(23.5%)
	11-15 yrs	44(21.6%)
	>15 yrs	39(19.1%)

Figure 1 Distribution of study participants according to difficulty in clinical decision making.

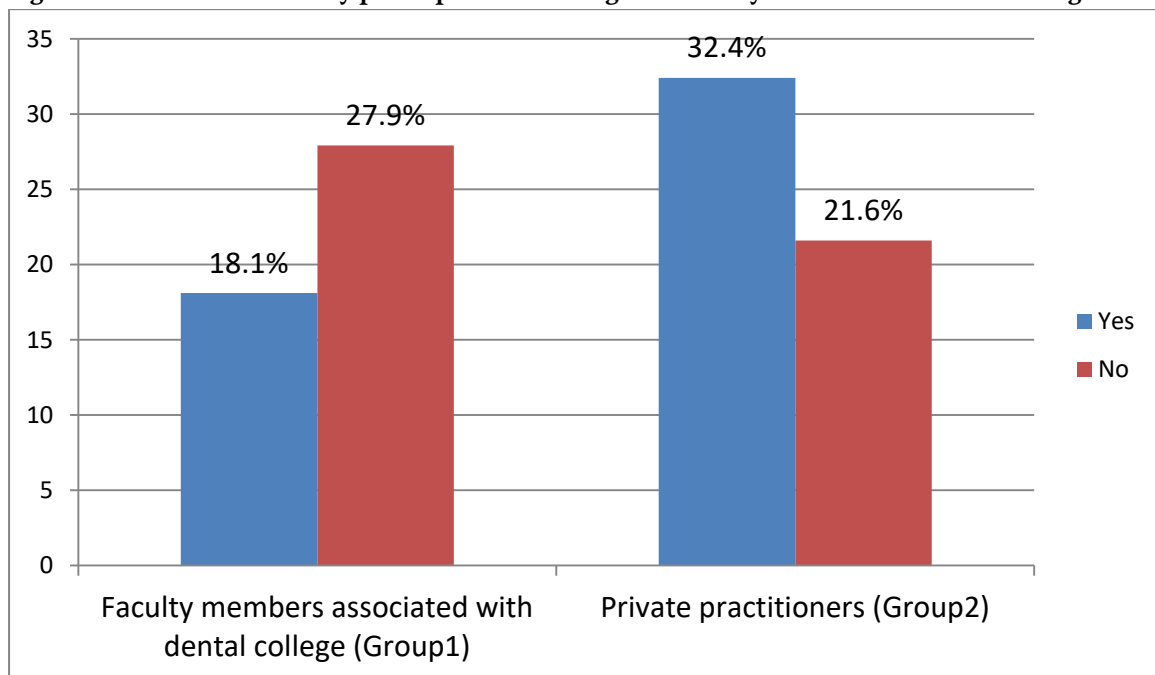


Figure 2 Distribution of study participants according to awareness regarding Evidence Based Dental practice.

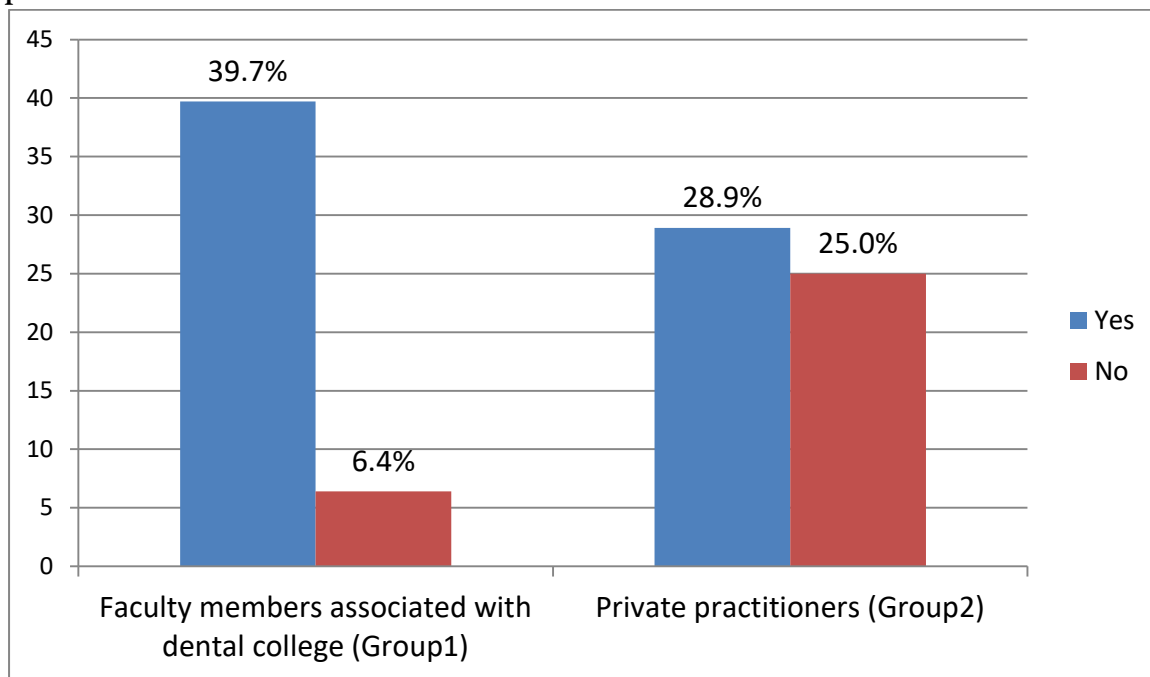


Figure 3- Distribution of study participants according to their attitude regarding Evidence Based Dental Practice.

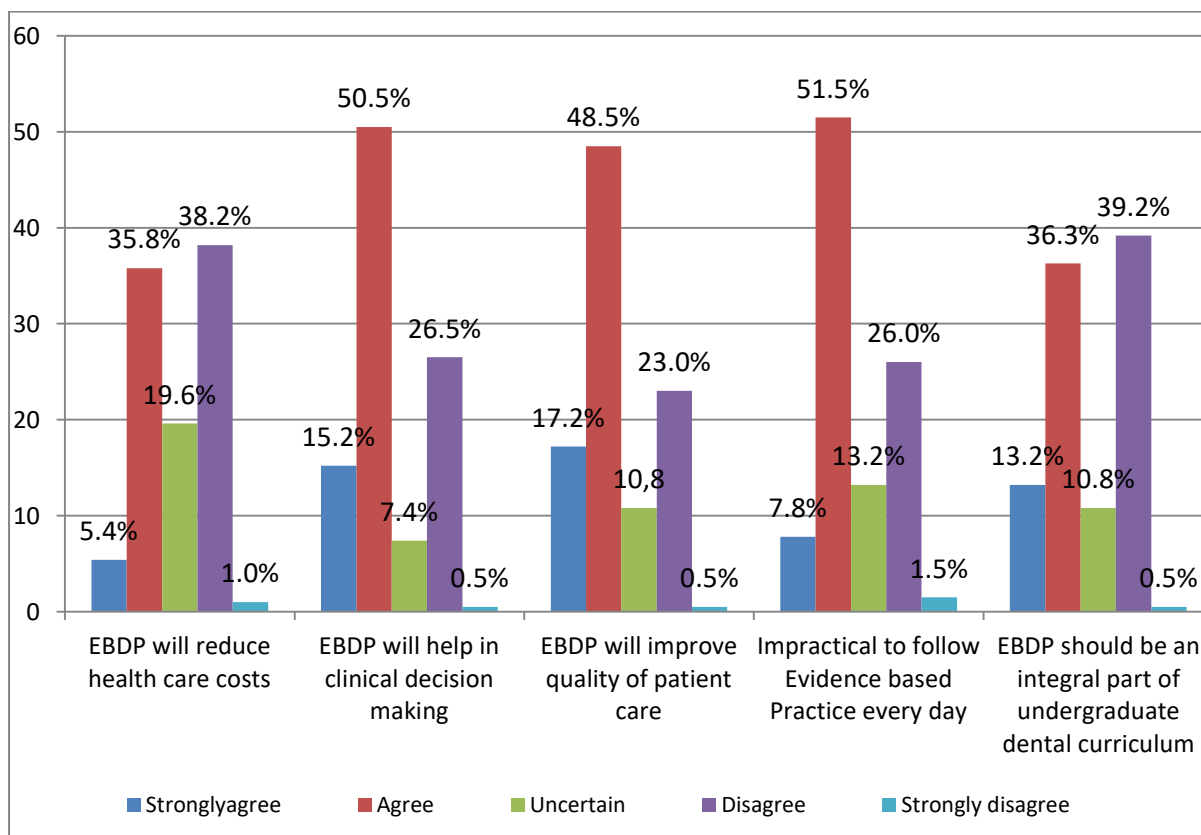


Figure 4- Distribution of study participants according to what extent do they practice Evidence Based Dentistry.

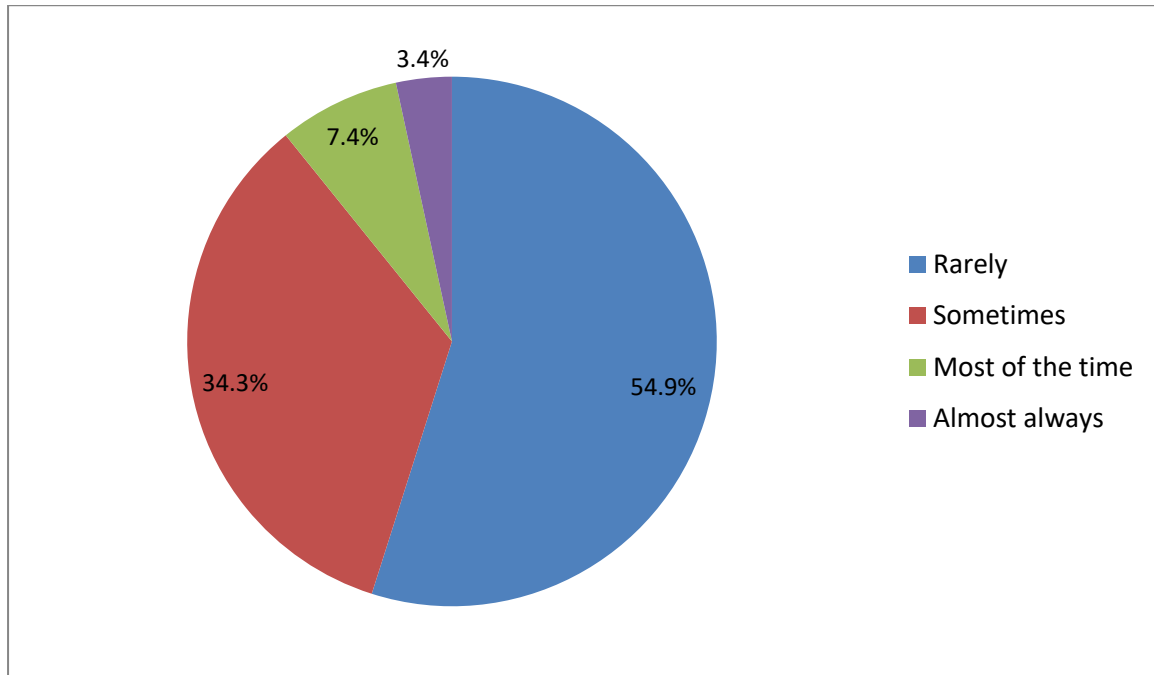


Table 2 Association between socio demographic details and knowledge regarding EBD among the study participants

Variables	Knowledge regarding EBD						Chi square	p value
	Poor		Fair		Good			
Age Group	N	%	N	%	N	%		
Less than 30	30	14.7%	11	5.4%	18	8.8%	8.565	0.073
31-40	20	9.8%	17	8.3%	37	18.1%		
41 and above	26	12.7%	13	6.4%	32	15.7%		
Gender								
Male	43	21.1%	22	10.8%	51	25.0%	0.284	0.868
Female	33	16.2%	19	9.3%	36	17.6%		

Qualification								
BDS	68	33.3%	17	8.3%	24	11.8%	65.394	0.000
MDS	8	3.9%	24	11.8%	63	30.9%		
Participants Group								
Faculty members associated with dental college (Group1)	10	4.9%	17	8.3%	67	32.8%	67.006	0.000
Private practitioners (Group2)	66	32.4 %	24	11.8% 11.8 %	20	9.8 %		
Clinical Experience								
1-5 years	32	15.7%	18	8.8%	23	11.3%	13.246	0.039
6-10 years	13	6.4%	7	3.4%	30	14.7%		
11-15 years	19	9.3%	10	4.9%	14	6.9%		
More than 15 years	12	5.9%	6	2.9%	20	9.8%		

Chi-square test, $p < 0.05$

Table 3– Association between sociodemographic details and attitude regarding Evidence based dental practice

Variables	Attitude Regarding EBD				Chi Square	P Value
	Positive		Negative			
Socio-Demographic	N	%	N	%		
Age group					10.067	0.007
Less than 30	27	13.2%	32	15.7%		
31-40	36	17.6%	38	18.6%		
41 and above	50	24.5%	21	10.3%		
Gender						

Male	80	39.2%	36	17.6%	20.050	0.000
Female	33	16.2%	55	27.0%		
Qualification						
BDS	39	19.1%	70	34.3%	36.436	0.000
MDS	74	36.3%	21	10.3%		
Participants Group						
Faculty members associated with dental college (Group1)	59	28.9%	35	17.2%	3.836	0.050
Private practitioners (Group2)	54	26.5%	56	27.5%		
Clinical Experience						
1-5 years	35	17.2%	38	18.6%	13.165	0.004
6-10 years	26	12.7%	24	11.8%		
11-15 years	21	10.3%	22	10.8%		
More than 15 years	31	15.2%	7	3.4%		

Chi-square test, $p < 0.05$

Table-4 Association between practice regarding Evidence based dentistry and study participants

4.1 To what extent do you practise Evidence Based Dentistry?	Faculty members associated with dental college (Group1) n(%)	Private practitioners (Group2) n(%)	Total n(%)	Chisquare	p- value
Rarely	57(27.9%)	55(27.0%)	112(54.9%)	7.494	0.058
Sometimes	25(12.3%)	45(22.1%)	70(34.3%)		
Most of the time	10(4.9%)	5(2.5%)	15(7.4%)		
Almost always	2(1.0%)	5(2.5%)	7(3.4%)		
Total	94(46.1%)	110(53.9%)	204(100.0%)		

Chi-square test, $p < 0.05$

Table-5 Association between barriers regarding Evidence based practice and study participants

Barriers regarding Evidence Based Practice	Faculty members associated with dental college (Group1)		Private practitioners (Group2)		Chi-square	P value
	Agree n(%)	Disagree n(%)	Agree n(%)	Disagree n(%)		
4.4 Due to lack of interest	17(8.3%)	4(2.0%)	112(54.9%)	25(12.3%)	7.066	0.029
4.5 Due to lack of time	17(8.3%)	4(2.0%)	119(58.3%)	18(8.8%)	3.091	0.213
4.6 Due to lack of access to internet connection	13(6.4%)	8(3.9%)	81(39.7%)	56(27.5%)	6.024	0.049
4.7 Due to lack of access to full text articles	19(9.3%)	2(1.0%)	131(64.2%)	6(2.9%)	21.283	0.000
4.8 Due to lack of skill to appraise scientific journal	15(7.4%)	6(2.9%)	112(54.9%)	25(12.3%)	11.851	0.003
4.9 Due to the attitude of patients	14(6.9%)	7(3.4%)	100(49.0%)	37(18.1%)	1.758	0.415
4.10 Due to the lack of application of evidence in patient	15(7.4%)	6(2.9%)	106(52.0%)	31(15.2%)	1.923	0.382
4.11 Due to financial constraints	15(7.4%)	6(2.9%)	101(49.5%)	36(17.6%)	4.853	0.088

Chi-square test, $p < 0.05$

Discussion

The present study was conducted to assess Knowledge, Attitude and Perceived Barriers towards EBP among Dentists in Kanpur City. The results of this study give us insight into how dentists use evidence-based practise. It is suggested that putting such a plan into action will significantly improve the delivery of high-quality patient care and clinical judgement.

In contrast to the faculty members connected to the dental college, dental practitioners in this study were not sufficiently familiar with EBP. Even though a positive attitude was seen among the dental professionals regarding EBP but there exist certain barriers in its practice.

In our study, maximum numbers of participants were in the age group of 31-40 years 36.3% and have a male predominance 56.4% which was similar with a study conducted by Rawat *et al.*⁸ and most of the individuals in study group had bachelor's degree (BDS) 53.4%, which was similar with the study conducted by Mahay *et al.*⁹ Among the participants, 110(53.9%) and 94(46.1%) were faculty members associated with dental college (Group1) and private practitioners (Group2) respectively.

In our study, 103(50.5%) of the participants, encounter difficulty in clinical decision making, and majority of the participants 108(52.9%) chose internet search in clinical decision making to rectify their clinical dilemma. This finding was similar to the study conducted by Rajagopalachar *et al.*¹⁰ whereas, 33(16.2%) of the participants consult a friend or colleague which was contrast with the study done by Nader *et al.*¹¹

In the present study, 134(65.7%) had knowledge of EBP which was similar to the study conducted by Yusof *et al.*¹² and Pratap *et al.*⁶ In this study, only 76(37.3%) of dental faculty members and 58(28.4%) of dental private practitioners knew about EBP which was in contrast with the study conducted by Bhor *et al.*¹³ and Sabounchi *et al.*¹⁴

A significant percentage of the participants, 74(36.3%) agreed that EBP should be an integral part of undergraduate dental curriculum whereas, 99(48.5%) agreed that EBP improves quality of patient care which was similar to the study conducted by Mahay *et al.*⁹ whereas, almost 103(50.5%) of the dental professionals agreed that EBP is important in clinical decision making which was in contrast with the study conducted by Bhor *et al.*¹³

In our study, majority of the participants 70(34.3%) practice EBP sometimes which was in contrast with study conducted by Haron MI *et al.*¹⁵. Most of the participants chose to rely on consultation with other professional 60(29.4%) to guide their clinical practice and support their clinical decisions which was in contrast with the study conducted by Straub-Morarend CL *et al.*¹⁶

Among the dental faculty members, 10(4.9%) showed poor knowledge, 17(8.3%) had fair whereas, 67(32.8%) had good knowledge regarding EBP and for private practitioners, 66(32.4%) showed poor and 24(11.8 %) fair and 20(9.8%) good knowledge regarding EBP which was contrast with the study done by bhor *et al.*¹³ A significant difference is seen among the groups in relation to knowledge regarding EBP which was similar to the study conducted by Bhor *et al.*¹³ and Kumar *et al.*²

Among all the participants, group 1 were more aware of the terms related to EBP. The difference was noted to be statistically significant with respect to the two groups which was similar to the study conducted by bhor *et al.*¹³ except the strongest and weakest evidence in the hierarchy of evidence.

Among the participants, 55.4% of the participants showed positive attitude whereas, 44.6% showed negative attitude towards EBD. The overall attitude of the dental faculty members and private practitioners towards EBP was positive with 28.9% and 26.5% which was similar with the study conducted by bhor *et al.*¹³ and Rajagopalachari *et al.*¹⁰ Among the participants, 70(34.3%) of the participants practice EBD sometimes with 25(12.3%) and 45(22.1%) in the group1 and group 2 respectively.

Among the participants, lack of access to full text articles was the most common barrier as reported by 131(64.2%) and 19(9.3%) in the group 1 and 2 respectively, which was in contrast with the study conducted by Rabe *et al.*¹⁷ and Mahay *et al.*⁹ where, lack of time was the major barrier.

The strength of our study is that this study will be in addition of data as there aren't many studies reporting on dentists in India's understanding of EBP and none on dentists in Kanpur city. The main limitation of

the study was small sample size as it does not represent total dentists of the city. Hence, it is challenging to generalize the findings.

The important recommendations are to conduct formal training sessions for practitioners to help them gain the abilities needed for EBP. Programs that teach interns, in particular, how to use evidence successfully in clinical uncertainties may be useful for their future practise.

Conclusion

The study's findings help us understand how dentists apply evidence-based practise. It is suggested that putting such a plan into action will significantly improve the delivery of high-quality patient care and clinical judgement. The study revealed that dental practitioners had limited knowledge about evidence based dental practices but they showed favourable attitude toward implementing it in their future practises. There are certain obstacles to practising evidence-based dentistry. To remove the obstacles that dental professionals see in the way of applying evidence-based practise, an adequate programme should be developed in the form of research workshops and seminars on EBP.

References

- 1) Bhor KB, Shetty V, Garcha V, Vinay V, Nimbalkar GC. Knowledge, attitude, and perceived barriers toward evidence-based practice among dental and medical academicians and private practitioners in Pune: A comparative cross-sectional study. *J Indian Assoc Public Health Dent* 2019; 17: 48-53.
- 2) Kumar JK, Patthi B, Singla A, Gupta R, Prasad M, Dhama K. Knowledge and usage of evidence-based practice among dentists in Modinagar, India: A questionnaire-based study. *J Indian Assoc Public Health Dent* 2017; 15:170-6.
- 3) Das. T, kumar M.P. Knowledge, Attitude and Practices towards Evidence Based Dentistry among Dental Practitioners. *International Journal of Scientific Development and Research*. 2021; 6(2):77-84.
- 4) Navabi N, Shahrahan A, Pourmonajem S, Hashemipour MA. Knowledge and Use of Evidence-based Dentistry among Iranian Dentists. *Clinical and basic research*. 2014; 14(2):223-230.
- 5) Pratap K, Padma TM, Sandhya MP, Kalyan VS, Anitha A, Bhargava A. Knowledge and attitude toward evidence-based dentistry among postgraduate students of a dental college in South India. *Indian j health sci* 2014; 7:88-91.
- 6) 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: 49-54.
- 7) Rawat P, Goswami P, Kaur G, Vyas T, Sharma N, Singh A. Knowledge, Attitude, and Behavior toward Evidence-based Dentistry among Dental Professionals in Jodhpur, Rajasthan, India. *The Journal of Contemporary Dental Practice* 2018; 19(9):1140-1146
- 8) Mahay P, Masih U. Evidence Based Dental Practice: Assessment of Knowledge, Attitude and Perceived Barriers among Dentists. *University journal of maxillofacial surgery and oral sciences* 2021;1(2): 17-22
- 9) Rajagopalachari US, Puranik MP, Rajput S. Knowledge, attitude, and practices toward evidence-based dentistry among dentists of Bengaluru city. *J Indian Assoc Public Health Dent* 2017; 15: 239-43.
- 10) Nader N, Arash S, Sepideh P, Hashemipour MA. Knowledge and use of evidence based dentistry among Iranian dentists. *Sultan Qaboos Univ Med J* 2014; 14:223-30.
- 11) Yusof ZY, Han LJ, San PP, Ramli AS. Evidence-based practice among a group of Malaysian dental practitioners. *J Dent Educ*. 2008; 72: 1333-42.

- 12) Bhor K, Nimbalkar G, Shetty V, Vinay V. Knowledge, attitude and perceived barriers towards evidence based practice among dental academician. *International Journal Of Scientific Research* 2017; 6(7): 387-90.
- 13) Sabounchi SS, Nouri M, Erfani N, et al. Knowledge and attitude of dental faculty members towards evidence-based dentistry in Iran. *Eur J Dent Educ*. 2013; 17: 127-37.
- 14) Haron IM, Sabti MY, Omar R. Awareness, knowledge and practice of evidence-based dentistry amongst dentists in Kuwait. *Eur J Dent Educ* 2012; 16:47-52.
- 15) Straub-Morarend CL, Marshall AT, Holmes CD, Finkelstein WM. Informational Resources Utilized in Clinical Decision Making: Common Practices in Dentistry. *Journal of Dental Education*. 2010; 75(4):441-52.
- 16) Rabe P, Holmen A, Sjogren P. Attitudes, awareness and perceptions on evidence based dentistry and scientific publications among dental professionals in the country of Halland, Sweden: A questionnaire survey. *Swed Dent J* 2007; 31:113-20.