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Research Article

TO ASSESS THE KNOWLEDGE REGARDING CEA AMONG DENTAL PRACTITIONERS WORKING IN CHANDIGARH, INDIA

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A B S T R A C T

Introduction: Clinical Establishment Act (CEA) was passed in India on 17th August 2010 with the aim of regulation and registration of all clinical establishments working in India.
Objectives: The purpose of this study was to assess the knowledge regarding CEA among Dental Practitioners working in Chandigarh, India.
Methods: A total of 100 private dental practitioners were questioned randomly in a cross sectional study. A self structured closed ended questionnaire was administered to each participant containing questions regarding CEA. Relevant statistical analysis was done using SPSS Version 20 software. The results were expressed as percentage and analyzed using Pearsons Chi square test and multiple linear regression test.
Results: A total of 100 dental practitioners were included in the study. The sample size consisted of 61 males and 39 female practitioners. Majority of practitioners were more than 35 years. Only 41% participants scored above 12 i.e taken as the high score, although almost everyone was aware of the very existence of the act and its purview in dental practice. Gender, work experience and age were the factors most significantly related to knowledge regarding CEA. Out of all these female candidates had the highest likelihood of scoring rightly.
Conclusion: To have safe and litigation free dental practice, healthcare professionals should have more elaborate knowledge regarding the CEA. To achieve this, health care service providers should have more trainings and CME,s attended to brush up their knowledge.

INTRODUCTION

India being one of the world leaders in population growth, there is an increasing need for health care facilities in India, especially when the population is surrounded by social evils like poverty, illiteracy drug addiction and tobacco consumption. To cater to their needs India has a poorly controlled health care system which is mainly governed by the state governments. In India there is a colossal public healthcare delivery system but the majority of the population is still governed by the private health care system including quacks.

This is more true for dental system where people still rely on quacks for extractions and other dental ailments and finally land up in losing large amounts of money and poor health care and complications. In order to check poor quality of treatment, over spending and quackery in dispensing healthcare facilities to the public, a unique, global universally acceptable regulation system should be devised, which lays down for minimum healthcare standards for the healthcare provider. With this aim the clinical establishment act was introduced in India.

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The dental services have also been brought into the purview of this act to have a bare minimum standards of care for the dental patients.

The history of registration dates back to 1910 in the United States of America, when "end result system of hospital standardization" was proposed. Finally in 1917 the American College of Surgeons laid down the minimum standards for hospitals while in United Kingdom, Health Quality System(HQS) is the oldest health accreditation service in Europe. Health care in India suffers from under regulation subjecting the populace to poor quality of treatment, quackery menace and high cost [CEA 2012]. This makes it imperative to enforce minimum standards on 2clinical establishments in both private and public sector. With this aim the Parliament of India on 17 August 2010 passed " The Clinical Establishment Act" to provide for registration and regulation of all clinical establishments in the country. The Act was notified by Gazette notification on 28 February, 2012 and came into force on 1st March, 2012 in four states of Arunachal Pradesh, Himachal Pradesh, Mizoram, Sikkim and all Union Territories except Delhi. All recognized systems of health except those run by Armed forces come under this act. This Act is all the more important at this point of time when large number of private healthcare establishments are flaring up in this era of boom of

medical business. As per the NSSO data of 60th round the private sector today provides nearly 80% of outpatient care and about 60% of inpatient care. As per NSSO data, as much as 40% of the private care is likely being provided by informal unqualified providers. The scenario is all the more same in Chandigarh, where a large chunk of migratory population is residing [Census 2012]. So we are conducting a survey on the local dental practitioners regarding their knowledge about the Clinical Establishment Act concerning Dental Establishment and their implementation.

MATERIAL AND METHODS

A cross sectional study was conducted among private dental practitioners in Chandigarh area from February 2018 to May 2018.The list of private dental practitioners was obtained from the respective Indian Dental Association branch of Chandigarh. From the list of private dental practitioners, 100 subjects agreed to participate in the survey.

A written, informed consent was obtained from the study subjects after explaining them about the aims and objectives of the study, as well as the fact that participation was voluntary and completely anonymous. The questionnaire used was in English and its psychometric properties (validity) were assessed. Content validity was assessed by a panel of experts. The purpose was to depict those items with a high degree of agreement among experts. A pilot study was performed on 10 subjects to determine the test-retest reliability of survey question.

The respondents were also asked for feedback on clarity and whether there was any difficulty in answering the questions or ambiguity to what sort of answer was required. A few modifications were made based on the response given by the participants to improve the understanding of the questionnaire. The face validity was also assessed and it was observed that 90% of the participants found the questionnaire to be easy.

The final questionnaire was divided into two sections. Section A included questions regarding demographic profile such as age, gender and years of practice while Section B included questions related to knowledge regarding Clinical Establishments Act. Thus a two page, self structured, closed ended questionnaire which contained 21 multiple choice questions was used.

The response to questions had only one correct answer. The knowledge scores of the practitioners were categorized as high and low based on the means of the total score which served as a cut-off point. The highest score achieved by any participant could be 21, as a correct response was awarded score of 1 while an incorrect response was given a score of 0.The participants of the pilot study were not included in the final analysis.

Statistical analysis was performed using SPSS version 20 (IBM Corp, Armonk, NY). The results were expressed in percentages. Multivariable linear regression analysis was carried to assess the association of participants demographics and professional characteristics with the knowledge scores.

RESULTS

A total of 100 dental practitioners were included in the study. The demographic variables are described as per Table .1. The sample size consisted of 61 males and 39 female practitioners. Majority of practitioners were more than 35 years. Both the graduate and postgraduate (PG) were almost comparable in number, 51 % were PG and 49% were graduates. As per the work experience59% had experience more than 10years.It was found that very few people had exact knowledge about the Clinical Establishment Act. Only 41% participants scored above 12 i.e taken as the high score, although almost everyone was aware of the very existence of the act and its purview in dental practice. The scores were very poor regarding the history of the act and its boundaries (30%). Knowledge regarding the objectives and the penalties imposed scored well above 60%. Now regarding the private dental establishments registration and norms scores were well above 60% going upto 80%.The total knowledge scores were analysed using the Chi square test for various variables and only gender, work experience and age were the significantly related variables. Multiple linear regression was applied and the strongest predictors were ascertained. Gender was the strongest variable with a p value of .001 and had a likelihood of 13.5 times answering a correct response. Work experience more than 10 years had a p value of .001 and a 1.42 times chances of correct response. Regarding age, candidates more than 35 years had a p value of .02 and they had 1.06 times chances of giving a correct response.

Table 1 Demographic variables (Original)

Variables	Frequency	Percentage	Meanscore
Gender male	61	61	12.5
Female	39	39	12.7
Work pvt	70	70	12.8
Pvt+ acad	30	30	11.3
Experience>10yrs	59	59	13.5
<10yrs	41	41	10.7
Age >35yrs	66	66	12.7
<35yrs	34	34	11.7
Qualification pg	51	51	12.4
Graduate	49	49	12.3

Table 2 Knowledge scores (Original)

Range of scores Male Female	7-18 7-15
Mean Male	12.5
Female	12.7
Median Male	11
Female	13
High knowledge Male	36%
High knowledge Female	71%
Low knowledge Male	64%
Low knowledgeFemale	29%

Table 3 Predictor analysis (Original)

		B	S.E.	Wald	Df	Sig.	Exp(B)	95% C.I.for EXP (B)Lower
Step 1[a]	Gender	2.606	.772	11.409	1	.001**	13.544	2.986
	Work	.253	.728	.121	1	.728	1.288	.309
	experience	.349	.103	11.556	1	.001**	1.418	1.159
	qualification	.955	.640	2.230	1	.135	2.599	.742
	Agegroups	.060	.026	5.344	1	.021*	1.062	1.009
	Constant	-9.255	3.051	9.202	1	.002	.000	

Table 4 Predictor analysis (Original)

		95% C.I.for EXP(B)Upper
Step 1[a]	Gender	61.442
	Work	5.363
	Experience	1.734
	Qualification	9.106
	Agegroups	1.117
	Constant	

DISCUSSION

CEA is an important tool which helps to bring uniformity in health standards and keeps a check on the bare minimum standards of a health institution among practicing dentists in India. All private dentists should have a detailed knowledge about the CEA, its provisions and minimum standards laid down for running a health facility. This elaborate knowledge may help the health care providers safe guard themselves from undue medicolegal problems and litigations. This survey was conducted to study the knowledge regarding this act, but very few people had exact knowledge regarding the act. In our study female dentists scored better than males with a likelihood of 13 times answering a correct response. This fact of female dominance in knowledge scores is supported by many studies [Lisa *et al*. 2015], [Ghasemi *et al*. 2007] where many oppose the same saying that either the males scored better [Soares *et al*. 2014] or their was no difference[Gupta *et al*. 2016]. Other statistical parameters were age more than 35 years and experience more than 10 years [Ramesh *et al*. 2013]. This was in accordance with previous studies where people with longer work experience had better knowledge scores.

Similarly people with greater age scored better, which indirectly correlated with the experience of a person roughly [Ramesh *et al*. 2013]. Our study showed that females with more work experience had better knowledge scores and a better knowledge regarding the CEA. Better knowledge scores in females can be attributed to the females being more sincere and law abiding towards their profession. The scores can also be attributed to smaller size of female sample and possibly a selection bias. Similarly for high scores with experience, these can be in accordance with the past studies or as a result of aberrations due to selection bias or a small size of the sample. The present study shows that very few dentists have knowledge regarding the CEA. So in order to implement CEA in its full sense, the knowledge of all private practitioners needs to be brushed using teaching programmes, trainings and continued medical educations.

CONCLUSION

CEA has been founded for quite some years and its boundaries are being continuously expanded to include more and more dental practitioners under its purview throughout the country. To have safe and litigation free dental practice, healthcare professionals should have more elaborate knowledge regarding the CEA. To achieve this health care service providers should have more trainings and CME,s attended to brush up their knowledge.

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Conflicts of Interest

Nil

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