

KNOWLEDGE AND PRACTICES REGARDING INFORMED CONSENT AMONG DENTAL PRACTITIONERS

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ABSTRACT

OBJECTIVES

To assess the knowledge and practices of dental practitioners regarding informed consent.

METHODOLOGY

A descriptive cross-sectional study was conducted on 150 dentists at the College of Dentistry, Sharif Medical and Dental College, Lahore from June 2019 to June 2020. A pre-validated questionnaire was used. Mann Whitney U test was performed to find the statistical difference in the knowledge and practice scores across the gender and place of practice of dentists and the Kruskal Wallis test for scores across the years of clinical experience and qualification of dentists.

RESULTS

The mean practice score was significantly different across levels of qualification ($p=0.032$) but not across years of practice (0.366). There was no significant difference in the mean knowledge score across years of practice ($p=0.744$) and levels of qualification ($p=0.366$). The highest mean score among knowledge questions was seen for the questions which inquired if informed consent should be taken before treatment. The highest mean score among practice questions was seen for the question which inquired if dentists obtained informed consent from parents before treating children.

CONCLUSION

The mean knowledge score for females was higher in comparison to males and was the highest in dentists with an experience of greater than 10 years. Most dentists were aware of the concepts, types and processes of informed consent and the importance of taking the patient's consent before treatment. Taking informed consent from patients before treatment, keeping it as part of their record and taking parents' consent before treating children were practiced.

KEYWORDS: Dental practitioners, Informed consent, Knowledge, Practice

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INTRODUCTION

In current era with advancement in information technology patients are more aware about the health care bioethics.¹ This demands increase need to obtain informed consent from patients prior to any treatment. Informed consent is a vital tool of standard ethical medical practice.² The concept of informed consent in medicine originated from ethics, and the Hippocratic Oath is one of the pioneer forms of medical ethics.³ It is the process of sharing information with patients about

different treatment options available for the patient along with their benefits, complications, cost factors and consequences of not getting the treatment. This information is mandatory for shared decision making.^{4,5,6} It is the plausible duty of healthcare providers to obtain informed consent from patients or their parents.^{7,8} Informed consent has two types i.e., implied and expressed consent. Implied consent is for non-invasive procedures when a patient passively cooperates. Implied consent does not need to be documented in the clinical record.^{7,9} However, expressed consent is for invasive procedures which can be taken verbally or with written documentation.¹⁰ Verbal consent is for routine treatment such for diagnostic procedures and prophylaxis, where the patient states their consent verbally. Written consent is of utmost importance before invasive procedures. It is more explicit consent, thus offering the highest guarantee to the participants.^{11,12} Like all other medical fields, informed consent is an integral component of dental practice as it decreases the dentist's liability from claims associated with miscommunication and will establish rapport between the dentist and his patient.^{13,14} Even though most of the dental procedures are non-invasive however, it is advisable that a duly signed informed consent should be obtained by dental practitioners for all the procedures.^{15,16} Numerous studies have reported the significance of informed consent.¹⁷ However, there is a lack of literature regarding the knowledge and practice of informed consent among Dental practitioners of Lahore, Pakistan. So the rationale of this study is to focus on this important component. It will help the healthcare system regulatory bodies to make it a mandatory component in the dental field. It will also help dental students and graduated dentists to understand the importance of informed consent. The aim of this study was to assess the knowledge and practices of dental practitioners regarding informed consent.

METHODOLOGY

A descriptive cross-sectional study was conducted on 150 dental practitioners at the College of Dentistry, Sharif Medical and Dental College, Lahore from June 2019 to June 2020. The sample size was calculated to be 126, keeping the prevalence of informed consent practice among dental practitioners to be 91%,¹⁴ the precision of 5%, confidence level at 95%. The sampling technique was a convenient sampling technique. Data were collected from 150 dental practitioners

after obtaining ethical approval from Sharif Medical Research Center (SMRC). Informed consent was taken from participants prior to data collection. Dental practitioners irrespective of age, gender, area of practice and clinical experience were included in the study. Those who refused to give consent were excluded from the study. A pre-validated questionnaire with a Cronbach alpha of 0.74 was divided into sections. Question 1 to 9 was based on assessing the knowledge of a participant about informed consent. Question 10 to 12 was about participants' clinical practice of informed consent. Each question response was scored according to a set criterion in which every question was given a maximum score of 2 while the minimum score is 1. The responses were recorded as Yes and No and a score of 2 was given to yes and 1 to no. Reverse scoring was done for negatively framed questions which means 1 for yes and 2 for no.¹⁸ Hence, scoring was done according to the most positive response to the least positive one. Therefore, a total score for knowledge was calculated to be 18. The maximum score for practice was calculated to be 6. SPSS 23 was used for statistical analysis. For analysis, a P-value of 0.05 or less will be considered significant. Numerical data like the age, knowledge and practice score were recorded as mean and standard deviation. Nominal data like gender, place of study (graduation), qualification and years of practice were recorded as frequency and/or percentages. Mann Whitney U test was performed to find the statistical difference in the knowledge and practice scores across the gender and place of study (graduation) of dentists. Kruskal Wallis test was performed to find the statistical difference in the scores of knowledges and practice across the years of clinical experience and qualification of dentists. Spearman rank correlation was used to find the correlation between scores of knowledge and practice of informed consent and qualification and years of practice of dental practitioners. Kruskal Wallis test was used to find the statistical difference in the mean scores of questions pertaining to knowledge and practice across qualifications and years of practice of dentists.

RESULTS

A total of 150 dental practitioners from the College of Dentistry, Sharif medical and dental college (SMDC), Lahore from June 2019 to December 2020 were included in the study with a mean age of 26.5 ± 4.365 out of which 27% were males while 73% were females. Out of all the participants 82% were graduates, 11% were

postgraduates and 6% were postgraduate trainees. The mean score for knowledge was found to be 17.16 ± 1.033 . It was seen that 99 % of the participants had good knowledge regarding informed consent while 0.7 % had poor

knowledge. The mean score for practice was found to be 5.55 ± 0.680 with 92% of practitioners demonstrating good practice while 8% showed an average practice regarding informed consent.

Table 1: Difference in the Knowledge and Practice Scores

Characteristics		Knowledge		Practice	
		Mean±SD	P-Value	Mean±SD	P-Value
Gender	Male	17.05±0.185	0.562 ^a	5.46±0.121	0.485 ^a
	Female	17.20±0.093		5.58±0.061	
Place of Study	Government	17±0.320	0.626 ^a	5.77±0.122	0.263 ^a
	Private	17.17±0.087		5.53±0.059	
Years of Experience	<5 years	17.17±0.093	0.744 ^b	5.52±0.062	0.366 ^b
	5-10 years	17±0.268		5.72±0.109	
	>10 years	17.43±0.202		5.71±0.286	
Qualification	Graduates	17.12±0.092	0.366 ^b	5.48±0.064	0.032 ^b
	Postgraduates	17.29±0.268		5.88±0.081	
	Postgraduate trainees	17.40±0.340		5.80±0.133	

a. Mann whitney u test
b. Kruskal wallis test

Table 2: Spearman Rank Correlation between Scores of Knowledges and Practice of Informed Consent with Qualification and Years of Practice of Dental Practitioners

	Knowledge Scores		Practice Score	
	R _s	P-Value	R _s	P-Value
Qualification of dentists	0.115	0.161	0.208	0.010
Years of practice of dentists	-0.030	0.716	0.114	0.163

Table 3: Kruskal Wallis Test Demonstrating the Difference in the Scores of Questions Pertaining To Knowledge across Qualifications and Years of Practice

S.No	Question	Mean±SD	Qualification (P-Value)	Years of Clinical Practice (P-Value)
1	What is informed consent?	1.99±0.081	0.897	0.906
2	Do you know the requirements of valid consent?	1.89±0.317	0.990	0.495
3	In which condition of a patient consent can be taken?	1.98±0.140	0.448	0.493
4	What are the laws concerned about informed consent?	1.70±0.462	0.749	0.958
5	Do you think a signature should be taken even if it is verbal consent?	1.79±0.405	0.950	0.344
6	Should consent be taken before treatment?	1.99±0.115	0.803	0.819
7	Is patient consent helpful in treatment?	1.94±0.238	0.355	0.787
8	Do you think it is necessary to have a good knowledge about types, process and concerned laws of informed consent?	1.98±0.140	0.448	0.493
9	Do you think it is an obligation to take informed consent?	1.90±0.300	0.347	0.759

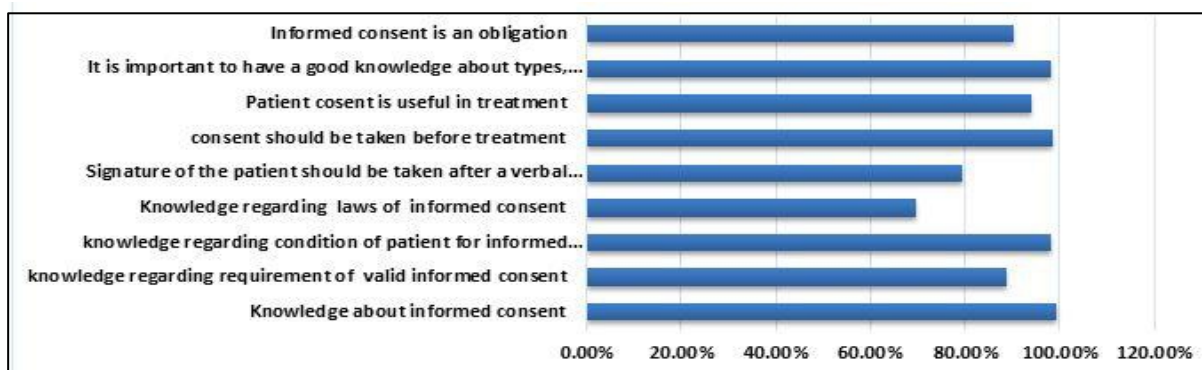


Figure 1: Responses to Questions Regarding Knowledge of Informed Consent

Table 4: Kruskal Wallis Test Demonstrating the Difference in The Scores of Questions Pertaining to Knowledge Across Qualification and Years of Practice

S.No	Question	Mean \pm SD	Qualification (P-Value)	Years of Clinical Practice (P-Value)
1	Do you take informed consent from the patients?	1.91 \pm 0.281	0.215	0.350
2	Do you keep informed consent as part of your record?	1.68 \pm 0.467	0.104	0.158
3	Do you obtain consent from parents while treating children?	1.95 \pm 0.211	0.452	0.311

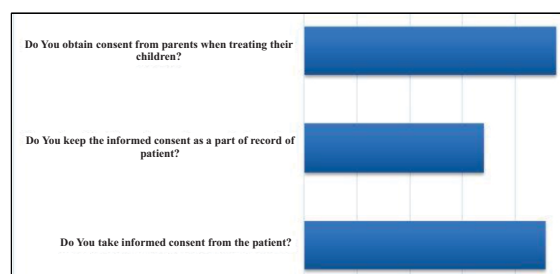


Figure 2: Responses to Question Regarding Practices of Informed Consent in Dental Practitioners

DISCUSSION

A cross sectional descriptive study was conducted on the dental practitioners of College of Dentistry, Sharif Medical and Dental College, Lahore to study their knowledge and practices regarding informed consent. According to our study, the mean knowledge score for females (17.20 \pm 0.093) was higher in comparison to males (17.05 \pm 0.185). It was also seen in our study that the mean knowledge score was the highest (17.43 \pm 0.202) in dentists with an experience of greater than 10 years, followed by 17.17 \pm 0.093 for dentists with an experience of less than 5 years and 17 \pm 0.268 for dentists with an experience of 5 to 10 years. Lal *et al* reported that the mean knowledge score for males was higher (7.91 \pm 2.33) in comparison to females (7.42 \pm 2.31).⁴ These findings are in contradiction to our study. It was also reported that the mean knowledge score was the highest for dentists with a clinical experience of greater than 10 years (8.89 \pm 2.08),⁴ which is very similar to our study. Furthermore, the study above reported that dentists with an experience of 6 to 10 years had a higher mean score (8.18 \pm 2.12) in comparison to those with an experience of 1 to 5 years (6.82 \pm 2.38). These results are different from our study. Gupta *et al* reported that mean knowledge score for males was higher (19.53 \pm 1.72) as

compared to females (9.50 \pm 1.61). They also reported that mean knowledge score for dentists with an experience of more than 10 years was 19.89 \pm 1.72, followed by 19.18 \pm 1.92 for dentists with an experience of 5 to 10 years and 18.78 \pm 1.68 for dentists with an experience of less than 5 years.¹⁸ Our study also reported that the mean knowledge score for postgraduates (17.29 \pm 0.268) was higher than the graduates (17.12 \pm 0.092). Very similar results were reported by other studies, where one reported the score for postgraduates to be 9.21 \pm 1.89 and that for graduates to be 5.78 \pm 2.68⁴ while the other¹⁸ reported the mean knowledge score for postgraduates to be 20 \pm 1.88 and that for graduates to be 19 \pm 1.70. According to our study, when inquired about the knowledge of informed consent, 99.3% were aware of the concept of informed consent, 98% knew the types and processes of informed consent, 88.7% had knowledge regarding the requirements of valid informed consent while 69.5% knew about the laws regarding it. A study conducted by Lal *et al* in Pakistan in 2017 reported that 86.4% dentists were aware of the concept of informed consent, 64.1% knew about its types, 46.6% knew the requirements for a valid consent, 32% were aware of the process of informed consent and 7.8% had knowledge of the laws regarding informed consent.⁴ According to our study 79.5% dentists were aware that signatures should be taken even after verbal consent, 98.7% reported it is important to take patient consent before treatment while 94% reported to be of the opinion that taking patient's informed consent helps with treatment. A study conducted by Gupta *et al* in India in 2015 reported that 97.4% dentists were aware of the basics of informed consent, 48.7% were aware that signatures should be taken even after verbal consent, 53.2% were aware that patient consent should be taken before treatment, 32.7% reported that it should be taken after treatment and 45.5% revealed that consent is helpful in treatment according to them.¹⁸ Our study reported that 91.4% reported taking informed consent from patients before treatment and 68.2% kept the informed consent as part of their record. It was also seen that 95.4% dentists took informed consent from parents while treating their children. According to the study reported above,⁴ it was seen that 76.7% dentists practice taking informed consent from patients before treatment. It was also reported that 89.3% took consent from parents while treating children. According to another study¹⁸ it was seen that 19.9% dentists took informed consent from patients and 10.9% reported keeping the record of that informed consent.

LIMITATION

A larger sample size could have revealed more findings regarding informed consent knowledge and practices in dentists.

CONCLUSION

The mean knowledge score for females was higher in comparison to males. The mean knowledge score was the highest in dentists with an experience of greater than 10 years, followed by for dentists with an experience of less than 5 years and then for dentists with an experience of 5 to 10 years. Majority of the dentists were aware of the concept of informed consent, knew the types and processes of informed consent, had knowledge regarding the requirements of valid informed consent were aware that signatures should be taken even after verbal consent, reported the importance of taking the patient's consent before treatment and acknowledged that taking patient's informed consent helps with treatment. The dentist predominantly reported taking informed consent from patients before treatment, keeping it as part of their record and taking informed consent from parents while treating their children.

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