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ORIGINAL ARTICLE

A SURVEY OF AWARENESS AND PRACTICES OF INFORMED CONSENT AMONG DENTISTS IN RAWALPINDI AND ISLAMABAD, PAKISTAN

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ABSTRACT

Objective: *The aim was to determine the awareness and practices of dental professionals about informed consent among various levels of qualification. A total of 129 dentists from Rawalpindi and Islamabad were included by convenience sampling technique.*

Methodology: *Dentists practicing clinically in Rawalpindi and Islamabad were included. Undergraduate dental students, dental technicians and dental assistants were excluded.*

Results: *Data was collected using an especially developed questionnaire, and analyzed using SPPS through chi-square tests.*

The mean age was 33.89±7.57 years. A total of 126 dentists (96.67%), including 45 females (34.88%) and 84 males (65.12%), were familiar with informed consent. The most frequently reported "basic element of Informed Consent" was confidentiality (n=50, 38.76%), followed by treatment alternatives (n=33, 25.58%), and all of these (n=29, 22.48%). The most frequently reported "main purpose of Informed Consent" was legal (n=128, 18.12%), followed by ethical (n=45, 35.16%), and all of these (n=51, 39.72%). Most of the participants said they take Informed Consent prior to treatment (n=103, 79.84%), stating that it is not a waste of time (n=69, 53.49), that they take it verbally (n=107, 82.95%), and that the minimum age to sign Informed Consent by oneself is above 18 years (n=109, 84.5%). Only 6 (4.65%) said they provide a copy of Informed Consent to patients.

Conclusion: *There was lack of awareness and good practices among dental professionals regarding the process of taking informed consent. More qualified dentists reported better awareness and practices compared to less qualified dentists. Only few dental professionals have the habit of obtaining written Informed Consent.*

Keywords: *Informed consent, dentists, dental professionals, written informed consent*

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INTRODUCTION

In recent times, the relationship of health care workers with patients has undergone significant evolution. In old times, the paternalistic approach was dominant in which doctors decided what was the best treatment for the patients but now Informed Consent is paramount in treatment planning. In this approach, the treatment plan is decided jointly by doctors, patients, and their guardians.[1, 2]

The aim of informed consent is to provide sufficient information to patients about their treatment to be able to take a decision and be autonomous in their treatment.[3] Consent is needed prior to initiating any dental procedure for new patients. Government authorities and professional organizations have issued updated evidence-based guidelines to the practitioners for optimal ethical practice.[4]

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Informed consent is the provision of detailed information about the patient's existingcondition, their prognosis, treatment options, and burden of treatment in terms of finances and time. Patient is given information in simple native language and with detailed explanation of terminologies. Full autonomy must be given to the patients to select the best treatment option according to their needs.[5] The mental capacity and age of the patient should be taken into consideration during informed consent. In case of children below 18 years of age and mentally handicapped patients, informed consent should be obtained from their guardians. [6]

The acquisition of written informed consent is very essential in dental treatment. Before the provision of dental treatment to the patients, it is crucial that the patient should be fully informed about all possible complications, financial burden, time involved and compliance. Along with this, all treatment alternatives should be explained to them. All these things should be in written form to prevent medico legal issues

Most of the litigations in European countries are due to not providing enough informationto the patients about the selected treatment option at the time of treatment planning.[7] Luckily, the dentists of Pakistan are less likely to face such litigation issues, due to the lack of proper laws that hold doctors accountable, lack of patients' awareness of their autonomy, andeducation levels. However, the awareness level among the general population is increasing due to mass media and people traveling to European countries.[8]

Previous studies conducted in Japan reported that almost all dentists were aware about informed consent.[9, 10] However, a study in South Africa reported 79%.[11] A study in Lahore found that 87% of dental students had knowledge about informed consent.[12] Similarly, a study conducted on 244 dentists in two institutes of Peshawar found that most of the participants were aware of informed consent and were acquiring it verbally.[13]

Informed consent is beneficial for both clinician and patient. Generally, it is one of the most underestimated aspects of patient care in our country. Though plenty of literature exists on informed consent[14], most of the local studies have been conducted in one or two institutes, and have asked limited questions. This study will bring forth the level of awareness of dental professionals regarding informed consent and the extent to which they practice it using a questionnaire. This will aid policy-makers in making informed consent mandatory and keeping checks in place.

The aim of this study is to determine the awareness and practice of dental professionals about informed consent among various levels of qualification.

MATERIAL AND METHODS

This cross-sectional descriptive study was conducted on 129 dentists of Rawalpindi and Islamabad from 10th July 2022 to 10th December 2022 by convenience, non-probability sampling technique. The sample size was calculated by using WHO calculator at 95% confidence level, 6% margin of error and using 86% frequency of knowing the meaning of informed consent from a previous study.[14] Ethical approval was not necessary in this study due to no involvement of patients and ethical problems.

Dentists who have completed BDS and are in clinical practice including House officers, general dentists, post graduate residents (of FCPS, MDS, or MSc) - in Rawalpindi and Islamabad were included. Undergraduate dental students, dental technicians and dental assistants were excluded from the study. Questionnaires containing close-ended questions on informed consent were shared with participants through email or WhatsApp. Purpose and benefits of the study were mentioned at the start of the questionnaire. The response rate was more than 85%.

The questionnaire was especially designed for this study and contained demographic questions as well as questions related to awareness and practices of informed consent. It was validated after conducting a pilot study and with the help of a panel of experts in Biomedical Ethics.

The collected data was analyzed in SPSS 22. Awareness and practices of Informed Consent were compared among various levels of age, gender and qualification using chi-square tests. The level of significance was set at $p \leq 0.05$.

RESULTS

The mean age was 33.89±7.57 years which ranged from 21 to 50 years. Forty-five females (34.88%) and 84 males (65.12%) participated in the study. The most common age group was 31-40 years (n=51, 39.53%) followed by 21-30 years (n=49, 37.98%). Specialist consultants, postgraduate residents, general practitioners, and house officers were 51(39.53%), 32(24.81%), 30(23.26%) and 16(12.40%) respectively.

A total of 126 participants (97.67%) were familiar with the term "Informed Consent". When participants were asked about the basic element of informed consent, most of them reported confidentiality (n=50, 38.76%), followed by treatment alternatives (n=33, 25.58%) and 29(22.48%) all of these. Twenty-four participants (18.12%) reported that the main purpose of Informed Consent is legal, followed by ethical 45(35.16%), and all of these 51(39.72%). Most of the participants responded positively that Informed Consent should be

TABLE 1: FREQUENCY OF GENDER, AGE GROUP AND QUALIFICATION

Variable	Characteristics	N = 1291
Gender	Female	45 (34.88)
	Male	84 (65.12)
Age group (years)	21-30	49 (37.98)
	31-40	51 (39.53)
	41-50	29 (22.48)
Qualification	General Practitioner	30 (23.26)
	House officer	16 (12.40)
	Postgraduate Resident	32 (24.81)
	Specialist consultant	51 (39.53)

TABLE 2: AWARENESS AND PRACTICES OF INFORMED CONSENT AMONG DENTISTS

Variable	Characteristic	N = 1291
Do you know about informed consent?	Yes	126 (97.67)
	No	3 (2.33)
	Alternatives	33 (25.58)
Do you know the elements of informed consent?	Compensation in case of emergency	12 (9.30)
	Confidentiality	50 (38.76)
	Risk and benefits	5 (3.88)
	All of these	29 (22.48)
Do you know the main purpose of IC?	Administrative	9 (7.03)
	Ethical	45 (35.16)
	Legal	24 (18.12)
	All of these	51 (39.72)
Should consent be taken before treatment?	Yes	103 (79.84)
	No	26 (20.16)
Do you think taking informed consent is a waste of time?	Always	8 (6.20)
	Sometimes	52 (40.31)
	Never	69 (53.49)
Do you take signature from patients even if verbal consent is taken?	Always	8 (6.20)
	Sometimes	14 (10.85)
	Never	107 (82.95)
What is the minimum age for self-signing IC?	14 yr	5 (3.88)
	14-18 yr	15 (11.63)
	above 18 yr	109 (84.50)
Do you provide a copy of IC to patients on request?	Always	6 (4.65)
	Sometimes	29 (22.48)
	Never	94 (72.87)
Do Patients consent to help you with the treatment?	Always	72 (55.81)
	Sometimes	45 (34.88)
	Never	12 (9.30)

What type of consent do you take?	Verbal	79 (61.24)
	Written	29 (22.48)
	Both	21 (16.28)
In which practice do you consider taking IC necessary?	Endodontics	3 (2.33)
	Orthodontics	38 (29.46)
	Prosthodontics	4 (3.10)
	Surgical	84 (65.12)
Has the habit of taking informed consent ever helped you in your practice?	Always	72 (55.81)
	Sometimes	45 (34.88)
	Never	12 (9.30)
Taking IC gives you mental satisfaction and autonomy in treatment.	Always	69 (53.49)
	Sometimes	52 (40.31)
	Never	8 (6.20)

**HO, House officer; PGR, Postgraduate resident; GP, general practitioner; IC, informed consent

TABLE 3: COMPARISON OF AWARENESS AND PRACTICES OF INFORMED CONSENT AMONG VARIOUS LEVELS OF QUALIFICATION

Variable	Characteristic	GP, N = 301	HO, N = 161	PGR, N = 321	specialist, N = 511	p-value2
Do you know the basic elements of IC?	Alternatives	2 (6.67)	4 (25.00)	11 (34.38)	16 (31.37)	<0.001
	Compensation in case of emergency	0 (0.00)	1 (6.25)	5 (15.62)	6 (11.76)	
	Confidentiality	20 (66.67)	8 (50.00)	9 (28.12)	13 (25.49)	
	Risks and benefits	4 (13.33)	1 (6.25)	0 (0.00)	0 (0.00)	
	All of these	4 (13.33)	2 (12.50)	7 (21.88)	16 (31.37)	
	Administrative	4 (13.33)	2 (12.50)	1 (3.12)	2 (4.00)	
Do you know the main purpose of IC?	Administrative	4 (13.33)	2 (12.50)	1 (3.12)	2 (4.00)	<0.001
	Ethical	15 (50.00)	9 (56.25)	15 (46.88)	6 (12.00)	
	Legal	7 (23.33)	3 (18.75)	9 (28.12)	5(9.00)	
	All of the above	4 (13.33)	2 (12.50)	3 (9.38)	38 (76.00)	
Should IC be taken before treatment?	No	12 (40.00)	7 (43.75)	4 (12.50)	3 (5.88)	<0.001
	Yes	18 (60.00)	9 (56.25)	28 (87.50)	48 (94.12)	
Do you think taking IC is a wastage of time?	Always	4 (13.33)	2 (12.50)	0 (0.00)	2 (3.92)	<0.001
	Sometimes	18 (60.00)	9 (56.25)	12 (37.50)	13 (25.49)	
	Never	8 (26.67)	5 (31.25)	20 (62.50)	36 (70.59)	

Do you take signature from patient even if verbal consent is taken?	Always	1 (3.33)	1 (6.25)	1 (3.12)	5 (9.80)	0.9
	Sometimes	2 (6.67)	2 (12.50)	4 (12.50)	6 (11.76)	
	Never	27 (90.00)	13 (81.25)	27 (84.38)	40 (78.43)	
What is minimum age signing self IC?	14 yr	3 (10.00)	2 (12.50)	0 (0.00)	0 (0.00)	0.021
	14-18 yr	6 (20.00)	0 (0.00)	4 (12.50)	5 (9.80)	
	above 18 yr	21 (70.00)	14 (87.50)	28 (87.50)	46 (90.20)	
Do you provide copy of IC on pt request?	Always	1 (3.33)	0 (0.00)	0 (0.00)	5 (9.80)	0.6
	Sometimes	7 (23.33)	4 (25.00)	8 (25.00)	10 (19.61)	
	Never	22 (73.33)	12 (75.00)	24 (75.00)	36 (70.59)	
Do patients consent to help you with the treatment?	Always	14 (46.67)	8 (50.00)	18 (56.25)	32 (62.75)	0.8
	Sometimes	13 (43.33)	6 (37.50)	10 (31.25)	16 (31.37)	
	Never	3 (10.00)	2 (12.50)	4 (12.50)	3 (5.88)	
What type of consent you are taking?	Both	4 (13.33)	1 (6.25)	1 (3.12)	15 (29.41)	<0.001
	Verbal	22 (73.33)	14 (87.50)	25 (78.12)	18 (35.29)	
	Written	4 (13.33)	1 (6.25)	6 (18.75)	18 (35.29)	
In which practice do you consider necessary obtaining the IC?	Endodontics	2 (6.67)	0 (0.00)	0 (0.00)	1 (1.96)	0.4
	Orthodontics	11 (36.67)	5 (31.25)	11 (34.38)	11 (21.57)	
	Prosthodontics	2 (6.67)	0 (0.00)	0 (0.00)	2 (3.92)	
	Surgical	15 (50.00)	11 (68.75)	21 (65.62)	37 (72.55)	
Has taking informed consent ever helped	Always	14 (46.67)	8 (50.00)	18 (56.25)	32 (62.75)	0.8
	Sometimes	13 (43.33)	6 (37.50)	10 (31.25)	16 (31.37)	
	Never	3 (10.00)	2 (12.50)	4 (12.50)	3 (5.88)	
Taking IC gives you mental satisfaction and autonomy in treatment	Always	13 (43.33)	8 (50.00)	18 (56.25)	30 (58.82)	0.7
	Sometimes	16(53.33)	6(37.50)	12(37.50)	18(35.29)	
	Never	1 (3.33)	2 (12.50)	2 (6.25)	3 (5.88)	

*Fisher exact test

**HO, House officer; PGR, Postgraduate resident; GP, general practitioner; IC, informed consent

taken prior to treatment (n=103, 79.84%). More than half of the respondents reported that Informed Consent is not a wastage of time (n=69, 53.49). Most of the dental professionals reported not taking signatures from patients and taking Informed Consent verbally (n=107, 82.95%). Most of the participants reported that minimum age to sign Informed Consent is above 18 years (n=109, 84.5%). Very few dental professionals said they provided a copy of the Informed Consent to patients (n=6, 4.65%). Post-graduate residents and specialist consultants reported better awareness and practices compared to house officers and general practitioners.

Significant differences were found among various levels of qualification in terms of whether or not dentists knew about Informed Consent (p=0.013) basic

elements of Informed Consent ($p<0.001$), main purpose of Informed Consent ($p<0.001$), need of Informed Consent before treatment($p<0.001$), Informed Consent is a wastage of time or not($p<0.001$), minimum age for signing self-Informed Consent for oneself($p=0.021$), and type of consent being taken (verbal or written or both) ($p<0.001$). The chi square results of how awareness and practices of informed consent varied across the various levels of qualification are presented in Table III.

DISCUSSION

This survey-type study was conducted to determine awareness and practices of informed consent among dental professionals of Islamabad and Rawalpindi. Our findings showed that most of the dentists were aware about the basic meaning and components of informed consent. Most of them were taking only verbal consent. Higher level of qualification was associated with more awareness and practice of informed consent.

Biomedical and dental ethics is now gaining popularity in Pakistan but still its teaching and practice is not being given due attention and respect during undergraduate and post graduate training. The routine practice of informed consent in our country is still not meeting the international standards.[14, 15]

Our study found that most of the dentists were not taking written informed consent. Similar results were shown in previous studies.[16]

While the results of other studies conducted in Pakistan align with those of this study, their participant pool solely comprised private dental practitioners, with no accompanying data on their qualifications or experience.[17]

Patients normally visit the dentist's office and give the dentist complete charge by requesting him or her to do what is best for them. Most of the procedures (>90%) in Dentistry are surgical. It is the utmost responsibility of dentists to take written informed consent as the effects of dental procedures are impactful, long lasting and have grave consequences if the patient is managed poorly.[18-20]

Limitations of this study

The study's findings may be limited by the use of convenience sampling and the focus on dentists in Rawalpindi and Islamabad, Pakistan, potentially limiting the generalizability of the results to a broader population of dental professionals.

CONCLUSION

It can be concluded from this study that there is insufficient awareness about informed consent among dental professionals. Post-graduate residents and specialist consultants showed significantly higher awareness levels and better practices compared to house officers and general practitioners. Only few dental professionals have the habit of obtaining written informed consent. The educators and policy makers need to emphasize the implementation of written informed consent in all dental practices.

Future Recommendations

Future research can be conducted in diverse locations on a larger sample of dental professionals. Barriers in the practice of taking informed consent can be studied not only from the dentist's perspective but also from the patient's point of view. The importance and procedure of taking informed consent should be incorporated in all educational programs so that doctors and dentists are aware of their responsibility while the patients become aware of their rights.

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5 Yousra Khan:	Data collection, manuscript editing and data interpretation
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