



## Knowledge, Training and Experience of Advocates (Lawyers) Regarding Medical Malpractice Laws in Pakistan

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### ABSTRACT

**OBJECTIVE:** To assess knowledge, training and experience of Pakistani lawyers related to medical malpractice laws in the country.

**METHODOLOGY:** This descriptive, cross-sectional study was conducted among 190 advocates/lawyers registered and practicing law in district courts Peshawar, Pakistan. A 30 item, self-administered, structured questionnaire was first developed, validated and pilot tested to collect data on demographics, training, experience and knowledge of the advocates regarding medical malpractice laws in Pakistan. The knowledge score was calculated. Student t-test and Chi square test were used to assess the association of knowledge score with experience and demographic characteristics.

**RESULTS:** Majority of the respondents were male (70%), age 30 years or below (64.6%) and possess only undergraduate (LLB) qualification (82.1%). The mean knowledge score of the study participants was 5.82.7. The knowledge score when categorized to low (participants scoring  $\geq 6$ ) or high (participants scoring  $< 6$ ) was found significantly associated with gender ( $p=0.041$ ), qualification (0.007) and training received ( $p=0.001$ ). However, there was no significant differences in the knowledge score on the basis of age, practice speciality or experience.

**CONCLUSION:** The present study conclude that majority of the advocates possess limited knowledge about the medical malpractice laws in Pakistan. It is therefore crucial to include medical malpractice law in LLB curriculum and provide training opportunities to the lawyers in order to improve their knowledge and create awareness of medical malpractice laws in Pakistan.

**KEY WORDS:** Malpractice, Negligence, Healthcare law, Medical Jurisprudence

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### INTRODUCTION

Since the beginning of 19th century, the world has witnessed a revolution in the field of medicine and health. Phenomena such rapid and accurate diagnostics, implants and organ transplantation and treatment of incurable diseases which were once considered as dreams and miracles are now a reality. The average life expectancy across the globe has increased significantly and according to some estimates, it will be close to 80 years or even more by 2050.<sup>1</sup> However, the scientific advancement also poses serious challenges to constantly healthcare systems across the world. The field of medicine, which was historically deemed as noble profession bringing the wealth, prestige and honor for those who practice it,<sup>2</sup> is gradually becoming a profitable business. The commercialization aspect of medical field has also redefined the

role of physician as life saver.

This implies that the doctor's proficiency in the field which was once judged by the amount and time spent on patient's care is now defined by the patients load handled, both in private and public sector healthcare system.

The duty of care of healthcare professional presume that he/she not only possess adequate knowledge and skills to provide treatment to the patients but also maintain privacy and confidentiality. The duty of care is a great responsibility which once broken could lead to the patient feeling deceived. As a result, the patients may lodge complain against the healthcare professional and initiate litigation process in a court of law. The primary reasons for a patient to approach a legal system are either professional incompetency or malpractice and negligence on part of healthcare professional. Medical

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malpractice/negligence is defined as the failure or inability of a healthcare professional to render standard level of care to a patient as expected from most of the trained professionals with same level of qualification, training and experience resulting in injury, pain, suffering or even death of the patients.<sup>3</sup> In all such cases, the patient/family may approach the court of law against the healthcare professional.<sup>4</sup> However, the doctor can only be held accountable for malpractice and negligence in the presence of a comprehensive legal system that can address and dispense justice to patients and their families.

Unfortunately, the legal system pertaining to medical malpractice and negligence in Pakistan is still in infancy. The legal remedies available to the public in case of a reported medical malpractice or negligence are few and include criminal liability under the Pakistan Penal Code 1860, disciplinary action under Pakistan Medical Commission (Formerly called Pakistan Medical and Dental Council) Act 2020 or provincial healthcare commission or code of civil procedure and consumer protection Act.<sup>2</sup> However, due to the low knowledge and awareness of the general public as well as healthcare professionals and lawyers, the number of medical malpractice cases dealt in a court of law in Pakistan is historically been very low.<sup>5,6</sup> Majority of the medical malpractice cases are neither documented nor redressed except those involving celebrities.<sup>7,8</sup> However, during the last two decades, the number of cell phone and social media users in Pakistan rises significantly.<sup>9</sup> As a result, a significant rise in the number of medical malpractice and negligence case reports is expected as reported elsewhere.

The issue of medical malpractice and negligence once reached the court of law is dealt by the law professionals (lawyers). For successful tackling and resolving the growing number of law suits related to medical malpractice, it is crucial for the lawyers to have sound knowledge and understanding of the healthcare system of Pakistan as well as legal remedies available to the public related to the medical malpractice and negligence. Only then, these professionals can play a bridging role between the public and the healthcare professionals and help in dispensing justice. However, the undergraduate (LLB) or postgraduate law curriculum in Pakistan does not include healthcare/medical malpractice law as core subject. It is hypothesized that the knowledge and experience of Pakistan lawyers regarding medical malpractice laws would be different and require an in-depth enquiry. Therefore, this cross-sectional study was designed to assess Pakistani lawyers (advocates) knowledge, training and experience regarding medical malpractice laws in Pakistan.

## METHODOLOGY

### Questionnaire development

In order to assess the lawyer's knowledge of the medical malpractice laws, the first and most important step was development of a questionnaire (tool) that is valid and reliable. For this purpose, a standard approach for questionnaire development was adopted. These include identification of a conceptual framework followed by generation of an item (questions) pool. Initially, the research team developed a 40-item self-administered questionnaire that include questions about demographic characteristics, training, experience and knowledge of the lawyers regarding medical malpractice laws in Pakistan.

The initial questionnaire was further subjected to content validation by 4 experts in the field of healthcare law and health profession education. The experts were asked to rate each question for relevance, appropriateness, clarity and accuracy on a likert scale of 1-4. Content validity of each item in the questionnaire (CVI) was calculated and a score above 0.8 was considered appropriate.<sup>11</sup> Pre-testing of the questionnaire was performed online, using Google Form link sent via email to 16 lawyers who practice law in KP districts other than Peshawar (study district). Pre-testing is an essential step to (1) confirm whether the participants understand the instructions to complete the questionnaire (2) calculate average time required to complete the questionnaire<sup>12</sup> (3) assess face validity<sup>13</sup> and difficulty index.<sup>14</sup> Following pre-testing, a final questionnaire containing a total of 30 questions was obtained which was used in the field for the final data collection.

### Study design and sample size

Following questionnaire development and validation, we have recruited a total of 250 registered advocates who were actively practicing in district courts Peshawar, Khyber Pakhtunkhwa Pakistan from between the month of May and August, 2022. For sample size calculation, we have followed McCoach et al<sup>15</sup> suggestion stating that the number of respondent should be at least 6-10 times than the number of questions in a questionnaire.

### Participants recruitment and data collection

Participant were recruited by convenient sampling technique was utilized to recruit the required number of legal practitioners (respondents) in the vicinity of district courts Peshawar. Participants were included in the study if they were qualified and practicing advocates (lawyers) with minimum LLB qualification and having valid license to practice law. Non consenting lawyers and those who practice in districts courts other than Peshawar were excluded from the study.

All the eligible participants were provided an information sheet containing information about the study and its purpose in an easy-to-understand language. Those who agreed to agree to participate in the study were asked to sign a written informed

consent. The participants were also provided paper based, self-administered data collection questionnaire. The questionnaire contains a total of 30 questions categorized into four sections. Section A gather information about demographic characteristics of the study participants and include 6 questions. Section B contain 4 questions about previous training of advocate, if any, related to the medical malpractice laws in Pakistan. Section C explore experience of the advocates regarding medical malpractice cases in their routine practice. The final section of the questionnaire consists of 18 multiple choice questions to assess knowledge of the advocates and include a number of case scenarios based on famous medical malpractice and negligence law suits filed in court of laws in Pakistan.

### Scoring and statistical analysis

The data collected from all the participants was manually entered into Microsoft Excel version 2013. In order to calculate the knowledge score of the participants, each question marked correctly on in the knowledge domain of the questionnaire (section D) was marked 1 while wrong or un-answered questions were marked as 0. Total score, mean and median knowledge score was also calculated. Statistical Package for Social Sciences (SPSS) version 22 was used for statistical analysis. Depending on the variable type, mean and standard deviation or frequency and percentages were calculated. The association between knowledge score and demographic and experience data was assessed using Student t-test or chi square tests. A p-value of <0.05 was considered significant.

## RESULTS

### Demographic characteristics of the respondents

Of the total eligible participants approached to take part in the study (n=250), only 190 participants returned the questionnaire resulting in 76% response rate. Overall, the response rate was high (81.5%) in male participants compared to 75% in females although the differences were not significant. Demographic characteristics of the study participants are presented in Table 1.

Around two third (64.6%) of the survey participants fall in young age bracket (age 30 years or less). An overwhelming majority (82.1%) of the respondents were LLB graduates and only 12% of the participants possess postgraduate degree in law (LLM). Criminal and civil law was the most common practice specialties reported. In terms of experience, more than half of the respondents were having 1-5 years of practice in the field. Gender-based differences in demographic characteristics of the study participants is presented in Table 2.

Male and female respondents showed significant differences

(p<0.05) when compared in terms of age, qualification and practice specialty. However, no significant differences were found in the practice years (experience) between male and female participants.

### Training of the participants related to medical malpractice

The participants were further asked whether medical jurisprudence was included in their course curriculum and if they received any training related to medical malpractice

Characteristics	Category	Number (N)	Percentage
Age (in years)	Mean ± SD	30.43	6.2
Age categories	≤30 years	106	64.6
	>30 years	58	35.4
Gender	Male	133	70.0
	Female	57	30.0
Qualification	LLB	156	82.1
	LLM	23	12.1
	LLB & MA/MSc	11	5.8
Practice specialty	Criminal law	46	33.3
	More than one specialty	46	33.3
	Civil law	28	20.3
	Family law	11	8.0
	Corporate law	2	1.4
	Narcotics law	2	1.4
	Service law	2	1.4
	Constitutional law	1	.7
Years of practice	Mean ± SD	5.9	4.9
Years of practice categories	1 - 5 years	111	58.4
	6 - 10 years	46	24.2
	> 10 years	24	12.6

Table 1: Demographic characteristics of the respondents laws in Pakistan (Table 3).

Around 75% of the participants reported that medical jurisprudence taught to them at either undergraduate or postgraduate level and only 26.3% reported that they received training related to medical malpractice law. However, most of the participants (45.2%) believe that the course curriculum or training was not enough to handle cases related to medical malpractice laws in their routine practice.

### Experience of medical malpractice cases regarding medical malpractice cases during routine practice

Table 4 present experience of the legal practitioners regarding medical malpractice laws. Legal practitioners, when asked about whether they deal medical malpractice cases in their routine practice, 6 out 10 participants responded yes. Majority of the medical malpractice cases, they deal, were related to criminal proceedings (60%) followed by damages suit (15.3%). Overall,

the mean knowledge score of all the participants was 5.8±2.7. As shown in the figure 2, the mean knowledge score of female respondents (5.4±2.6) was slightly lower than male respondents (6.08±2.7). However, the difference in the mean score between the two genders was not significant as assessed

Question	Categories	Frequency (N)	(%)
Was medical jurisprudence included in your course curriculum?	Yes	142	74.7
	No	24	12.6
	Don't Know	24	12.6
If yes, at which level, medical jurisprudence was taught in curriculum?	Undergraduate	97	55.4
	Postgraduate	57	32.6
	Other	21	12.0
Received training regarding medical malpractice law in Pakistan?	No	140	73.7
	Yes	50	26.3
Do you think that course curriculum/training in medical jurisprudence was enough to handle cases related to medical malpractice laws in Pakistan?	No	84	45.2
	Yes	81	43.5
	Don't Know	21	11.3

by independent samples t-test (p=0.12).

**Table 2: Gender based differences in demographic characteristics. \*p<0.05 is considered significant.**

We have also calculated the median knowledge score of the participants which was 6. Based on the median score, participants scoring ≥ 6 were classified as those with high knowledge score and those <6 were classified as low knowledge score. Overall, 100(52.6%) of the participants possess high knowledge regarding medical malpractice laws while the subject knowledge of 47.4% participants was low.

#### Factors associated with knowledge of the legal practitioners

The knowledge domain score, whether low or high, was including age, gender, qualification, practice specialty, years of practice and whether received training of medical malpractice law. We have found no significant difference in the knowledge score based on age of the respondents (p=0.519), practice specialty (p=0.124) or years of practice/experience (p=0.402). However, the present study reported significant differences in knowledge score based on gender (p=0.041), qualification (p=0.007) and training received (p=0.001). Table 5 shows respondents knowledge score and its relationship with demographic characteristics.

**Table 3: Training of the legal practitioners regarding medical**

#### malpractice law

Characteristics	Category	Gender N (%)		p-value
		Female	Male	
Age categories	≤30 years	42 (75)	64 (59.3)	0.03*
	>30 years	14 (25.0%)	44 (40.7)	
Qualification	LLB	49 (86)	107 (80.5)	0.016*
	LLB & MA/Msc	6 (10.5)	5 (3.8)	
	LLM	2 (3.5)	21 (15.8)	
Practic specialty	Civil law	8 (19)	20 (20.8)	0.01*
	Constitutional law	0 (0)	1 (1)	
	Corporate law	0 (0)	2 (2.1)	
	Criminal law	6 (14.3)	40 (41.7)	
	Family law	7 (16.7)	4 (4.2)	
	More than one specialty	20 (47.6)	26 (27.1)	
	Narcotics law	0 (0)	2 (2.1)	
Years of practice categories	Service law	1 (2.4)	1 (1)	0.07
	1 - 5 years	40 (70.2)	71 (53.4)	
	6 - 10 years	12 (21.1)	34 (25.6)	
	> 10 years	5 (8.8)	19 (14.3)	

Question	Categories	Frequency (N)	(%)
Do you handle cases related to medical malpractice in Pakistan?	No	75	39.5
	Yes	115	60.5
What type of medico-legal cases, do you deal mainly during your routine practice?	Criminal proceedings	114	60.0
	Damage Suit	29	15.3
	Do not deal medico-legal cases	18	9.5
	Insurance and refusal of services	2	1.1

**Table 4: Experience of medical malpractice**

## DISCUSSION

Medical negligence and malpractice is a global issue including countries of developing world like Pakistan as well as countries of developed world such as Europe, USA and UK. The reported estimate of death toll in USA is 98000 per annum purely due to negligence and malpractice of healthcare workers. Because of such malpractices, the judiciary system become loaded with medico-legal cases put either by patients or by their relatives to seek justice. time to ensure the sense of duty and responsibility in healthcare personnel. However, this can only be made Luckily, some cases of negligence and malpractice that occurred to



Variable	Categories	Knowledge score categories N (%)		p-value
		Low knowledge score	High knowledge score	
Age categories	≤30 years	55 (51.9)	51 (48.1)	0.473
	>30 years	29 (50)	29 (50)	
Gender	Female	34 (59.6)	23 (40.4)	0.02*
	Male	56 (42.1)	77 (57.9)	
Qualification	LLB	73 (46.8)	83 (53.2)	0.035*
	LLB & MA/Msc	9 (81.8)	2 (18.2)	
	LLM	8 (34.8)	15 (65.2)	
Practice specialty	Civil law	13 (46.4)	15 (53.6)	0.094
	Constitutional law	0 (0)	1 (100)	
	Corporate law	0 (0)	2 (100)	
	Criminal law	27 (58.7)	19 (41.3)	
	Family law	8 (72.7)	3 (27.3)	
	More than one specialty	19 (41.3)	27 (58.7)	
	Narcotics law	0 (0)	2 (100)	
Service law	2 (100)	0 (0)		
Years of practice categories	1 - 5 years	57 (51.4)	54 (48.6)	0.171
	6 - 10 years	23 (50)	23 (50)	
	> 10 years	8 (33.3)	16 (66.7)	

**Table 5: Respondents knowledge score and its relationship with demographic characteristics. \*p0.05 is considered significant.**

celebrities got highlighted on different platforms of media for example cases of Fauzia Wahab and Huma Wasim. Ample knowledge and clear understanding of health law system is of crucial importance for those who deal and practice such cases i.e., legal practitioners (lawyers) for unbiased, just and successful resolution, tackling and situation analysis of medico-legal cases.

Lawyers in their student life are expected to get acquainted and cleared with different aspects of healthcare laws and policies but unluckily, in Pakistan, the basic undergraduate law curriculum has only one optional subject titled as 'Medical and Forensic Law' in the whole 5 years duration and yet in not a compulsory course. This one drawback only is enough for the cause of prevalent situation of fatalities in the healthcare field. To the best of our knowledge, this was the first study of its kind from Pakistan, the country requiring significant reforms in the legal system dealing with medical malpractice. Steps followed for the development of questionnaire has already been explained in the literature.

There is a dire need of comprehensive knowledge of medical negligence and medical malpractice and available legal remedies for legal practitioners in Pakistan for changing the prevalent pity situation of medical field in Pakistan and

elsewhere in worlds. Increased knowledge and awareness of the patients as being the consumer of medical services has part in the change in addition to the frequent reporting of medical malpractice and negligence. In addition, the electronic, print and the social media play a big role in laminating the medical malpractice and negligence cases that get giant attention of public. Hence, the three stakeholders of medical field, the healthcare personnel, patients and legal practitioners should be ample acquaintance of knowledge and awareness of legal treatments, medical negligence and malpractice for this sensitive and protruded issue. Findings of this study present a bleak picture of lawyer's knowledge and awareness of medical malpractice being prevalent in Pakistan.

Largely, the knowledge and awareness of legal practitioners was not up to the standard as obvious from the mean knowledge score of 5.8 out of 18. These findings are in harmony with the results of an Indian study, whereas, varying level of knowledge of the dental jurisprudence law of India was possessed by lawyers of different experience and educational background. Significant difference is found on the basis of gender of responders i.e. 40% female and 57% male have high level of knowledge when compared on categories of knowledge score (low and high). This significant difference may be due to less number of female qualifying higher degrees such as LLM compared to male counterparts. Nonetheless, other contributing demographic confounding variables cannot be controlled for these dissimilarities.

In the current study, it is found that advocates qualified with higher educational levels i.e. LLM scored well than those who were with only master degree or LLB qualification. The variances in score might be due to difference in subjects of the curriculum followed at individual levels. Curriculum of LLB is limited and more focused to all subfields of law while on the other hand more choices regarding subjects' selection and a broader overview of contents attract LLM students towards healthcare law. However, this study revealed contrary findings as having no difference in knowledge based on experience (number of practicing years) possibly because of the fact that in Pakistan, the negligence and malpractice events came to surface recently and majority of the lawyers deal a very low number of such cases per annum. Therefore, the knowledge and experience of such cases might be the same for both the fresh and experienced legal practitioners. Because of the scarcity of reported studies on this topic, further comparison of findings of our study was not possible with accessible literature and extract sensible deductions and explanations.

Some of the findings of this study highlighted the importance of changes in curriculum relating to medical legal philosophy at graduation, master degree and at the level of governing bodies like Higher Education Commission (HEC). The findings are that

overwhelmingly large number of our study participants 75% reported inclusion of medical jurisprudence in their curriculum whereas the level of gained knowledge regarding the subject not up to the mark to handle and analyze such cases in their routine legitimate practice. Therefore, it is a due season that HEC should compose a Curriculum Review committee at national level, which should include medical jurisprudence and medical profession experts for the re-structuring of current curriculum. Keeping in view the sensitivity and continuously growing number of reported medico-legal cases, the curriculum should be modified in such a way that subjects related to medical law philosophy should be made compulsory. The introduction of more specialty courses on Healthcare Law/Medical Malpractice to produce pool of lawyers who are well equipped with medical malpractice knowledge and legal remedies in Pakistan.

Nearly 40% of study participants conveyed either no exposure of dealing medical negligence and malpractice cases or dealt criminal proceedings in such cases. This finding elaborates the unawareness of public regarding the legal remedies and medical malpractice and these cases come into lime light only when healthcare practitioners practice a gross and criminal negligence. Unluckily, the reported cases are rare despite of countrywide prevalent unethical medical negligence and malpractice. Therefore, training of law practitioners regarding knowledge of medical malpractice, available legal remedies and their role in enlightening the public is dire need of time. Even though, this study is foremost of its reporting information on knowledge, training and experience of lawyers about medical malpractice laws in Pakistan, the study has several limitations.

First, this is likely that the expert opinions of the experienced and qualified legal practitioners may not be up to the standards of questionnaire development and validation. This is due to the scarcity of professionals trained and polished in healthcare legislation. Secondly, convenience sampling method was used for the recruitment of participants which may not represent the whole population of lawyers at site justly. The third limitation is that there is doubt in generalizability of study findings on the whole population due to relatively small size of sample. Lastly, a single centered study could mask the variations due to background education, experience and demographic variables in different areas of Pakistan.

## CONCLUSION

Comprehensive findings of this study present a bleak picture of the prevalent situation. Legal practitioners have below the average knowledge regarding medical jurisprudence and medical malpractice. Responders have discouraging experience and training aspects. Modification and updating of medical jurisprudence curriculum at undergrad level at national level is dire need of time. Keeping safe the legal rights of healthcare

personnel, strict proactive measures are required for the reforms in legitimate system dealing negligence and malpractice. Legal practitioners can get help in enhancing their awareness, knowledge and career development in practicing the medical law philosophy and educating the public the available legal remedies to them.

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