



Knowledge, Attitude, and Practices of Dental Practitioners Regarding Domestic Violence in Pakistan

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Abstract

Domestic violence is a complex social issue worldwide that includes a wide range of physical, sexual, psychological, economic, or emotional trauma to a child or adult. A large proportion of domestic violence cases remain unreported or undocumented. Dentists can play an important role in identifying and reporting these cases, but no such local study is available assessing the dental practitioners' attitudes and knowledge of evaluating physical abuse in Pakistan. The objective of this study was to assess the knowledge and practices of dental practitioners of Pakistan about domestic violence. This cross-sectional study was carried out over 2 months, among 330 dentists across Pakistan, selected by convenience sampling technique. Data was collected via a pre-validated online questionnaire, filled anonymously after taking informed consent. The survey questionnaire collected data about dentists' demographics, awareness, and experiences about domestic violence cases via close-ended questions. Only 10.6% of participating dentists received formal training in the management of domestic violence cases. Approximately 55% of participants knew that physical abuse should be reported in all circumstances; however, half of them could not accurately identify the legal authorities where suspected cases should be reported. Only 20% of the participating dentists had ever suspected a case of physical abuse and 30% of those actually reported it to legal authorities. Participants characterized fear of anger from relatives as the most significant barrier toward reporting suspected cases. The analysis revealed that Pakistan's dentists lack adequate knowledge regarding domestic violence in terms of identification, relevant physical signs/symptoms, and social indicators. Dentists of Pakistan had insufficient knowledge about the identification, management, and reporting of domestic violence cases. However, formal training and dentists' qualification were positively associated with overall awareness and practices regarding domestic violence case management.

Keywords

dentists, abuse, knowledge, domestic violence, Pakistan

What Do We Already Know About This Topic?

Domestic violence is a complex social issue worldwide. There have been various studies worldwide to assess dentists' knowledge, attitude, and practices in identifying and reporting domestic violence cases. A number of these surveys have revealed that dentists all over the

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world have insufficient knowledge and practices when it comes to domestic abuse cases.

How Does Your Research Contribute to the Field?

A timely diagnosis and intervention on behalf of dentists may help prevent further trauma to the patient, thus reducing the burden of domestic violence in the community.

What Are Your Research's Implications Toward Theory, Practice, or Policy?

This study can help educationists and policymakers in updating curricula and clinical practices of dental professionals toward diagnosing and ethically reporting a case of physically assaulted domestic violence victim.

Introduction

Domestic violence is a complex social issue worldwide that includes a wide range of physical, sexual, psychological, economic, or emotional trauma to a child or adult.¹ World Health Organization (WHO) estimated that 30% of women are victims of intimate partner violence at least once in a lifetime all over the globe, with the largest prevalence of 37% in the Southeast Asian region.² Domestic abuse (DV) is a long-standing social blight that has long been hidden from the public view. The prevalence of domestic violence has reached epidemic levels that impacts people in countries all over the world effecting people of various age groups.^{3,4} According to a systematic review, globally 75% of children from 2 to 4 years of age suffered from physical or psychological trauma at the hand of their caregivers in 1 year.³ According to a survey in the USA, approximately 3–10% of elderly people are reported to suffer from domestic violence.¹ Despite the reported high prevalence, actual statistics of domestic violence are considered to be even higher, especially among the low-income countries.⁴

Domestic violence victims may suffer from psychological stress and short-term physical injuries to long-term debilitating and even fatal trauma. Inflicted nonfatal physical injuries may include contusions, lacerations, hematoma, fractures, broken teeth, and ligamentous or facial trauma.⁵ Various studies have shown a preponderance of nonfatal trauma on the head, neck, and face region among children and adults.^{1,6} This highlights the role of dentists specifically oral and maxillofacial surgeons in evaluating and reporting the victims of domestic violence suffering from obvious physical trauma. A survey in the United States reported that out of all female victims seeking healthcare services, 16.7% of victims of sexual abuse, and 9.2% of victims of physical assault, visited dentists.⁷ Another study reported

that 23% of patients seeking healthcare services for head, neck, or facial trauma were domestic violence victims.⁸ Despite the high relation of craniofacial trauma with domestic violence, less than 1% dentist have provided information in patients with suspected domestic abuse.⁹

Sociocultural factors, lack of education, training, motivation, and legislative infrastructure are the perceived barriers for less reporting of suspected physical abuse cases among dental professionals.¹⁰ To overcome this gap, USA,¹¹ European union,¹² Australia,¹³ and some Arab states¹⁴ have legislatively obligated their healthcare physicians to report the suspected domestic violence cases to concerned authorities. Likewise, dentists should also be educated and trained to evaluate and report alleged domestic violence victims among low economic African and Southeast Asian countries.

In Pakistan, violence is tolerated as a cultural norm and viewed as acceptable conduct in male-dominated society.¹⁵ Cultural norms prohibit open discussion of domestic abuse against women.¹⁵ In Pakistan, according to domestic violence (Prevention and Protection Act), all cases of physical abuse should be reported to Ministry of Human Rights in which people can report cases by calling helpline (1099) and can have free legal advice, redressal and referral mechanism.^{15,16} According to this act, it is necessary to document all sign and symptoms for use in court, to help the victim for proper legal proceedings. It can also act as a source of evidence for future.^{15,16} It is vital to alert healthcare practitioners to the domestic violence cases and give them with the information and resources they need to respond sensitively and effectively to survivors in order for them to assume their roles in minimizing the impacts of violence and fulfilling their responsibilities. These recommendations are a first step in this direction.¹⁷

There have been various studies worldwide to assess dentists' knowledge, attitude, and practices in identifying and reporting domestic violence cases.¹⁷⁻¹⁹ A multitude of these surveys have shown inadequate knowledge and practices dentists toward domestic violence cases all over the world.^{17,18,20} However, to the best of our knowledge, no such local study is available assessing the dental practitioners' attitudes and knowledge of evaluating physical abuse in Pakistan. A timely diagnosis and intervention on behalf of dentists may help prevent further trauma to the patient, thus reducing the burden of domestic violence in the community. Our study was planned to fill this research gap, with an objective of analyzing the knowledge and practices of dental practitioners of Pakistan toward domestic violence victims. In addition to triggering further researches, this study can assist educationists and legislators in revising curricula and clinical practices of dental professionals toward diagnosing and ethically reporting a case of domestic violence victim.

Methods

Study Design and Participants

This descriptive cross-sectional study was carried out over 2 months, from December 15, 2020 to February 15, 2021, among

dental practitioners all across Pakistan. The study conformed to STROBE guidelines for cross-sectional studies.²¹ The sample population was selected via a convenience sampling technique. The data was collected from dentist who were conveniently available and gave consent to participate in the study. Dentists practicing within Pakistan for more than 2 years, lying within an age range of 23–75, were included in the study, whereas the dentists who had graduated from abroad were excluded from the study. The sample size was kept at 385, as estimated using the WHO sample size calculator, with 95% confidence and 5% margin of error, out of which 330 responded.

Data Collection

Data was collected using a pre-existing questionnaire,^{14,22} voluntarily and anonymously filled online. It was created and disseminated via “Survey Monkey” (version 2.1.21). This study was approved by Institute of Dentistry, CMH Lahore Medical College Ethics Committee (Approval no. 519/ERC/CMH/LMC), and all participants provided written informed consent prior to enrollment in the study.

The purpose of the study was explained at the beginning of the questionnaire. Informed consent was taken. The questionnaire was divided into 3 components: The first component (Section I) gathered information about demographic data, the second component (Section II) about awareness, and the third (Section III) about their experiences as dental practitioners with domestic violence cases. All the questions were closed-ended. This questionnaire was pre-validated as it was already used in prior studies.^{14,22}

Data Analysis

Statistical Package for the Social Sciences (SPSS version 23) was used to analyze the response to the questionnaire. Outcome data was of quantitative type. Descriptive statistics were used to summarize the questionnaire’s responses, with the results being presented as frequencies and percentages.

Three questions assessing knowledge and 1 question assessing participants’ behavior toward domestic violence victims were selected for detailed analysis and converted into dichotomous outcome variables. The knowledge questions assessed the awareness about signs and symptoms of physical abuse, the first action to be taken if physical abuse is suspected, and the circumstances in which the dentist should report physical abuse cases. The behavior question assessed if the participant had ever suspected a case of physical abuse. For each of these 4 questions, a score of 0 and 1 was allocated for wrong and correct options, respectively. Each question’s total knowledge score was categorized into good or poor knowledge, using an 80% cut-off point. For example, for signs and symptoms (Q-10), there were 9 options and 80% of 9 = 7. So, if a participant secured a score greater than or equal to 7, he/she was categorized as having good knowledge. Similarly, all participants’ scores were calculated for selected questions and

then categorized into good/poor knowledge. Lastly, the association between selected 4 variables (3 knowledge and 1 behavior assessment questions) with gender, qualification, and formal training was tested by using the chi-square test of association, with a *P*-value of $\leq .05$ (5%) considered as significant.

Results

A total of 330 participants participated in this study, including 61 males and 269 females. The response rate of our survey was 82.5%. Demographic characteristics of participants are given in Table 1.

Only 10.6% of the participating dentists had received formal training to diagnose and manage physical abuse cases. For 30% of the participants, the primary source of knowledge about general physical abuse was online sources. In comparison, the undergraduate and post-graduate programs had added very little information to this issue. Participating dental practitioners were of the view that the top 3 signs of physical abuse include skin bruises (80%), broken teeth (73.6%), and burn marks (62.4%). Awareness of dental practitioners regarding the social indicators of domestic violence is elaborated in Figure 1.

More than half of the participants (55%) agreed that every suspected domestic violence case should be reported in all circumstances. Approximately half of them (51%) believed that suspected cases should be reported under the domestic violence prevention and protection act instead of going to the police or some social agency.

Regarding dental practitioners’ practices toward domestic violence victims, only 20% of the participating practitioners had ever suspected an individual as physically abused. Out of those who suspected, 69% asked the individual about it, and 52%

Table 1. Demographic and Background Characteristics of Participants (n = 330).

Variable	Frequency (n)	Percentage (%)
Gender		
Male	61	18.5
Female	269	81.5
Age		
23–25 years	160	48.5
26–30 years	91	27.6
31–40 years	63	19.1
41–60 years	15	4.5
Above 60	1	0.3
Qualification		
Graduate	200	60.6
Post-graduate trainee	94	28.5
Specialist	36	10.9
Area of practice		
Public	111	33.6
Private	157	47.6
Both	62	18.8

documented the signs/symptoms, whereas only 30% of them reported these suspected cases to legal authorities. Behavioral assessment of dentists toward domestic violence cases showed that primary causes of under-reporting of physical abuse cases

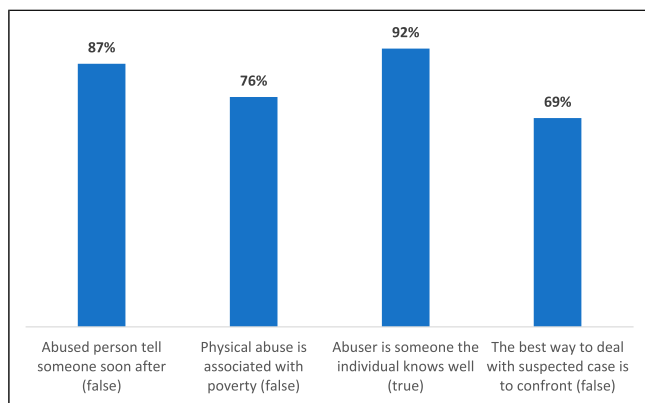


Figure 1. Dentist's knowledge about social indicators of domestic violence (n = 330).

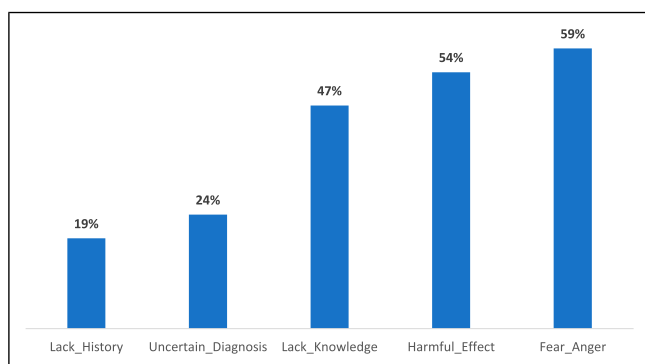


Figure 2. Dentist's opinions of the main causes of under-reporting of domestic violence cases (n = 330).

included fear of anger (59%), possible harmful effects (54%), and lack of knowledge (47%) (Figure 2).

Results of the chi-square test of association between selected 4 variables (3 knowledge and 1 behavior assessment questions) with gender, qualification, and formal training are summarized in Table 2. The analysis showed that females had better knowledge about the first action to be taken while suspecting a physical abuse case than the males. The specialists also had a better understanding of how to respond to a suspected physical abuse case firsthand as compared to the graduates and post-graduate residents. The analysis highlighted that dental practitioners, who had not received formal training regarding domestic violence case management, were less likely to suspect a case of physical abuse as compared to those who had received formal training as shown in Table 2. Female gender as well as level of qualification has significance taking first action, in case of suspicion of domestic violence as shown by *P* values .001 and .003, respectively. Formal training in the relevant field has significance in identification of cases of physical abuse as shown by *P* value = .006 (Table 2).

Discussion

This study was carried out to assess dental practitioners' knowledge and behaviors about domestic violence, which can help establish future programs and relevant policies in our region. Perhaps domestic violence victims suffer from trauma in the head and neck region; dentists can serve as first-line agents in identifying and reporting physical abuse cases.²³

Our survey showed insufficient knowledge of dental practitioners about the identification and reporting of domestic violence cases. Previous studies in other regions of the world, including India, Saudi Arabia, and the USA, have shown similar results regarding insufficient dentists' awareness about physical abuse cases.²⁴⁻²⁶ Only 31% of

Table 2. Knowledge and Behavior of Dental Practitioners About Domestic Violence.

Variables	Categories Frequency (Percentage)	Signs and Symptoms of Physical Abuse (Good)	First Action if an Abuse Case Is Suspected (Good)	Circumstances, Abuse Case Should Be Reported (Good)	Case of Physical Abuse is Suspected (Yes)
	Total (n = 330) n (%)	102 (31%)	73 (22%)	185 (56%)	65 (20%)
Gender	Male (n = 61)	18 (30%)	23 (38%)	37 (61%)	14 (23%)
	Female (n = 269)	84 (31%)	50 (19%)	148 (55%)	51 (19%)
	<i>P</i> -value	.793	.001 ^a	.423	.479
Qualification	Graduate (n = 200)	57 (29%)	34 (17%)	116 (58%)	37 (19%)
	PG-Trainee (n = 94)	30 (32%)	24 (26%)	52 (55%)	18 (19%)
	Specialist (n = 36)	15 (42%)	15 (42%)	17 (47%)	10 (28%)
	<i>P</i> -value	.281	.003 ^a	.480	.431
Formal training	Yes (n = 35)	13 (37%)	11 (31%)	15 (43%)	13 (37%)
	No (n = 295)	89 (30%)	62 (21%)	170 (58%)	52 (18%)
	<i>P</i> -value	.399	.161	.096	.006 ^a

^aStatistically significant result at 5% level of significance.

dentists had good knowledge of physical abuse signs and symptoms in our survey, again consistent with previous studies.²⁴ In this survey, approximately 80%, 73.6%, and 62.4% of dentists declared skin bruises, broken teeth, and burn marks as the most frequent signs of physical abuse, respectively. In a previous study among Saudi dental practitioners, 94%, 67%, 84%, and 74% of participants had opted for skin bruises, broken teeth, burn marks, and head trauma as signs of physical violence, respectively.¹⁴

Our study showed that 30% of the participants declared online resources as the primary source of their general physical abuse knowledge. The majority of the participants agreed that our undergraduate and post-graduate programs had added a negligible amount of knowledge to this issue. However, previous studies in the regions of UAE, Jordan, and the USA have shown conflicting results, where the majority of the participants declared undergraduate courses as the main source of their knowledge regarding domestic violence.^{14,17,25,27,28} This highlights the need for upgradation of our curricula in congruence with international guidelines.

In this survey, only 22% of dental practitioners had good knowledge about the recommended first action to be taken when suspecting a case of physical abuse. A relatively higher percentage was seen in previous research among Saudi dentists, where only 40% of participants correctly responded to the above question.¹⁴ Regarding dentists' awareness about social indicators of domestic violence, respectively, 87% of dentists falsely assumed that victims immediately tell someone else and 76% thought that physical abuse is pertinently related to poverty. The results are similar to previous studies conducted among dentists of Saudi Arabia, Jordan, and UAE, where dentists had insufficient awareness about social indicators of domestic violence.^{14,17,25,27,28} As the knowledge of social signs and physical symptoms of domestic violence can help in timely identification of victims, steps must be taken to increase awareness among practicing dentists. In our study, 69% of dentists had a faulty perception that the best way to deal with domestic violence cases is confrontation. A similar trend of lack of awareness of social indicators of domestic violence among dentists was also seen in India and Turkey previously.^{22,29}

In this study, approximately half of the participants (55%) correctly identified that every suspected domestic violence case should be reported in all circumstances, so the importance of timely reporting of an event of domestic violence can protect the victim from further damage. These findings are comparable to those of a previous survey conducted in Saudi Arabia, which revealed that just 40% of dentists were able to accurately identify all of the circumstances.²⁵ This difference can be attributed to good coverage of this topic in the USA's undergraduate curriculum.²⁵

In our study, half of the participants could not answer that suspected cases should be reported.¹⁴ This percentage is considerably less than in the USA, where 85% of dental practitioners and 86% of undergraduate dental students had sufficient knowledge of these circumstances correctly identify

which legal authorities suspected cases should be reported. Undergraduate medical students of Turkey and practicing dental practitioners of Jordan also agreed that despite being aware of the need to register, participants could not correctly identify the legal authorities where suspected cases should be reported.^{27,29} Similar studies in UAE, USA, and Saudi Arabia have also shown lack of awareness of relevant legal authorities among medical students and practicing dentists.^{17,25,27,28} Lack of awareness about legislation of domestic violence is reported worldwide. This possibly is due to lack of awareness about the protection law among general population including dentists. Emphasis should be placed on increasing awareness regarding identifying and reporting domestic violence cases via improving curricula and introducing training courses.

The assessment of dentists' behaviors toward domestic violence victims showed that only 20% of the dentists had ever suspected an individual as physically abused. Out of those who suspected, only 30% reported it to legal authorities. A survey conducted among Dutch dentists also showed a similar trend where 81% of the medical practitioners, who had ever suspected a case of physical abuse, simply took notes of those signs/symptoms.²⁰ Previous surveys among dentists of Brazil, Jordan, Scotland, Croatia, Greece, Italy, and Saudi Arabia depicted that frequency of suspected domestic violence cases ranged widely from the highest 86% in Brazil to only 11% in Saudi Arabia. However, the frequency of reporting suspected cases to legal authorities among dentists was consistently low all over these countries, ranging from only 10% to even less than 3%.^{14,17,18,27,29-31} In contrast, a survey among dentists of Faroe Islands showed relatively higher percentages, where 61% of dentists had suspected a case of physical abuse at some time in their careers and 39% of them had reported these cases to legal authorities.³² The researchers have attributed this behavior among dentists toward the social structure of their small-scale society.

In our survey, dentists ascribed the fear of anger from relatives of the victim, possible harmful effects, and lack of knowledge as the most common barriers toward reporting the cases of domestic violence. This is probably because violence is tolerated as a cultural norm and viewed as acceptable conduct in male-dominated society in Pakistan as well as victim experiencing retaliation from the perpetrator, a lack of support from family members.^{15,16} Many studies have reported the underlying causes of the under-reporting of physical abuse cases worldwide. Surveys in India, Faroe Islands, Scotland, Croatia, various regions of Saudi Arabia, and Jordan have reported similar reasons, including lack of knowledge and fear of anger from victims' families as the topmost barriers.^{17,22,24,27,29,32} Other reported barriers toward reporting of physical abuse cases include self-perceived values and attitudes, inability to screen in the presence of a relative, lack of training, and uncertainty about diagnosis.^{11,33,34} Upgradation of curricula and strict implementation of existing laws can help the dentists overcome these barriers.

In this study, specialists knew better that how to first respond to a suspected case, as compared to the graduates and post-

graduate residents, consistent with previous studies.^{14,23} This highlights the influence of training, education, and experience on overall awareness of dentists about domestic violence cases.

The behavioral assessment revealed that dental practitioners with no formal training were less likely to suspect a case of physical abuse as compared to those who had received formal training. Our results are supported by a multitude of studies all over the globe, where formal education and training had a positive influence on knowledge, attitude, and practices of dentists toward domestic violence cases.^{14,17,23,31,33,35} Increased awareness among dental practitioners can help them timely diagnose and report such cases of physical abuse, thus reducing the burden of domestic violence in society.

This study has a limitation of small sample size without considering the socioeconomic characteristics of the dentists, which could have led to the potential bias in the results. As a small percentage of dentists appeared to have good knowledge about domestic violence cases, further comparison based on gender, training, and education was rendered difficult. Secondly, obtaining and evaluating factual data from hospitals and relevant law enforcement authorities can help produce more reliable results.

Despite the limitations, this study is unique in highlighting Pakistani dentists' knowledge and behavior toward the cases of domestic violence. Being an unexplored topic in our region, this research can help trigger future researches with a broader perspective. The results of this study can also help policymakers in future curriculum and program development for Pakistan's dental practitioners.

Conclusion and Recommendations

Dentists of Pakistan had insufficient knowledge about the identification, management, and reporting of domestic violence cases. However, formal training and dentists' qualification were positively associated with overall awareness of practices for optimal identification and management of suspected cases of domestic violence.

Increased coverage of this topic in dental school curricula is an important strategy for improving knowledge and behaviors among dental practitioners as reported that their primary source of knowledge was undergraduate studies. The problem of recognizing and preventing further domestic abuse is complex and multifaceted enhancing education is only one step in the process. Forensic dentists can assist victims in a proactive manner. In suspected situations of abuse, healthcare and academic institutions can have clear referral mechanisms. Providing dentists with literature, seminars, and continuing education courses would raise their awareness of the referral procedures accessible at the institutions where they work.

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Declaration of Conflicting Interests

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Ethical Approval

This study was reviewed and assessed by the ethical review committee of the CMH Lahore Medical College and Institute of Dentistry, Lahore, Pakistan, Reference Number: 516/ERC/CMH LMC; Dated: December 11, 2020.

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