Original Article

# Dentists' Willingness to Report Suspected Violence Cases in Saudi Arabia

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**Received** : 08-10-19.
**Revised** : 17-11-19.
**Accepted** : 21-11-19.
**Published** : 21-01-20.

ABSTRACT

**Background and Aim:** Violence is a life-threatening issue that mainly affects head and neck areas. Dentist might be the first person to notice this type of injury. This study aimed to investigate dentists' willingness to report suspected violence exposure of their patients and factors associated with their willingness. **Materials and Methods:** In a cross-sectional study of 363 dentists in Riyadh, Saudi Arabia, a previously validated self-administered questionnaire was distributed, in both printed and electronic forms (Google Forms), to collect data on personal characteristics, professional background, and negative perception and professional attitude toward reporting suspected violence. Descriptive and analytic statistics were applied. Significance was considered at $P \leq 0.05$. **Results:** The majority of dentists reported positive perception (88.4%) and positive attitude (68.0%) toward reporting suspected violence, with percentage mean scores of 35.2 ± 19.6 and 83.5 ± 15.0, respectively. Higher professional attitude score was significantly associated with the ability of dentists to recognize signs of violence ($t = 3.19$, $P = 0.002$). Negative perception mean scores were significantly higher with non-Saudi nationality ($t = 2.03$, $P = 0.043$), private sector ($F = 3.33$, $P = 0.037$), no training on abuse management ($t = 3.02$, $P = 0.003$), and perceived ability to identify victims of violence ($t = 2.61$, $P = 0.01$). After adjusting for potential confounders, negative perception was predicted by non-Saudi nationality ($P = 0.028$) and no history of previous training in abuse management ($P = 0.004$). **Conclusion:** Almost all dentists have high professional attitude scores and low negative perception scores toward reporting violence, which reflect a good sense of responsibility toward their patients and community. Educational training in abuse management must be a requirement for dental practice.

**KEYWORDS:** *Dentists, negative perception, professional attitude, reporting violence, willingness*

## INTRODUCTION

The World Report on Violence and Health (WRVH) defines violence as "the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development, or deprivation".[1] Violence is a very serious public health issue that mainly affects women and children. It is estimated that 30%–35% of physically abused individuals are women worldwide.[2] In 2017, the World Health Organization (WHO)[3] stated that up to 1 billion children experienced physical, sexual, or emotional violence or neglect. In 2014, WHO published the first report to assess the global efforts in preventing violence. The report stated that although the issue

Access this article online

Quick Response Code:

Website: www.jispcd.org

DOI: 10.4103/jispcd.JISPCD_416_19

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**How to cite this article:** Abolfotouh MA, Alfehaid HA, Almadi DS, Aldali HW, Alshareef AA, Adlan AA. Dentists' willingness to report suspected violence cases in Saudi Arabia. J Int Soc Prevent Communit Dent 2020;10:220-5.

is preventable and efforts are taken to reduce it, it is insufficient and more is left to be done.[4] Despite the fact that the majority of physical injuries are inflicted to the head and neck area, dentist might be the first person to notice physical abuse cases.[5] Unfortunately, it appears that many dentists do not report suspicions violence.[2] Lack of certainty, fear of prosecution, fear of family violence toward the abuse, and concerns of the negative influence on their practice are the main reasons that dentists do not report violence cases.[2] It is very crucial to understand that abuse can happen anywhere regardless of the social and cultural barriers.[5] However, the prevalence of partner violence is considered the highest (37%) in the Eastern Mediterranean Region, which includes the seven Arabian Gulf countries. These countries are best known by their norms rather than a specific race.[6] Moreover, as violence has a cultural component, which might be considered as violence in the Western countries, it may consider acceptable in others.[6]

van Dam *et al*.[2] found that 58% of Dutch dentists are aware of the dentists' report codes (DRCs) and take action in different ways. In a study in eight Arab countries to investigate the dentists' intention to report suspected violence, the prevalence of intention to report suspected violence ranged from 61.1% in Egypt and Yemen to 85.8% in Palestine.[7] In a study in Saudi Arabia, Mogaddam *et al*.[8] found that only 11% of the 208 participating dentists had suspected cases of child abuse, and only 3% of them reported suspected violence cases. Cultural issues could be one of the reasons for non-reporting by Saudi dentists. In Saudi Arabia, a program on "Protection against Abuse and Violence" was initiated on May 6, 2011, making it mandatory for health-care workers to report suspected violence by developing specific children and adults report forms.[9]

To the best of our knowledge, there is not enough information on the status of reporting violence by dentists in Saudi Arabia. Therefore, in this work, we tried to shed the light on dentists in the Saudi culture and their perception toward reporting suspected violence, which could save lives, dignity, and improve patients' quality of living. Thus, the aim of this study was to assess the willingness of dentists working in Saudi Arabia to report cases of suspected abuse.

## Materials and Methods

### Study design

A cross-sectional study was conducted for 2 months, from July to August 2018, after obtaining the approval from the Institutional Review Board of the Ministry of National Guard – Health Affairs, Riyadh, Saudi Arabia.

### Study subjects

The study focused on dental practitioners in Riyadh region, Saudi Arabia, working in academic, private, or public dental clinics. Consultants, specialized and general dentists, and dental interns in in four different geographical regions (South, West, North, and East) in Riyadh city were included.

### Sample size and sampling

The sample size was 363 dentists based on an expected prevalence of 61.7%,[7] confidence level of 95%, and level of precision of 5%. In a multistage stratified random sampling technique, the four main regions of Riyadh city were nominated for this study. Using an equal allocation method of sampling, and from each of these regions, an equal number of dentists (consultants, specialized and general dentists, and dental interns) were chosen from those who agreed to participate in the study, to represent private, governmental, and academic dentists of both sexes.

### Data collection

Dentists were invited to participate if they had a bachelor degree of dentistry, or if they are specialist or consultant. The data were collected using a previously constructed self-administered questionnaire, based on previous studies,[7,8,10,11] and written in English. To validate the questionnaire for face validity, it was submitted to expert's review and they approved the questions (20 questions), and their opinions were recorded for face validity. To validate it for content validity of the questionnaire, 10 dentists were tested as a convenience sample. Later, dentists were asked to give the feedback on the overall questionnaire clarity in terms of length and language. Dentists included in pilot study were excluded from the final sample. No modifications were required in the questionnaire.

The questionnaire comprised five sections including 20 close-ended questions:

The *first section* included questions, which gathered information about personal background (age in years, gender, and having children [yes or no]).

The *second section* inquired about professional background including specialization (general practitioner or specialist/consultant), type of practice (private, public, or academic sectors), receiving training in abuse management (yes or no), and perceived ability to identify victims of violence (yes or no).

The *third section* assessed perception of reporting suspected violence, using a previously validated tool.[7]

Participants were asked to indicate how much they considered each of six negative statements was true on the place they work on a scale from not true at all (1) to very true (10). The statements were all negatively phrased and indicated that reporting was not required by law, not enforced, not a rule of the place one worked, not the dentist's job to do, not culturally acceptable, and that there was no specific authority to report to.

The *fourth section* assessed respondents' attitude toward reporting violence using a previously validated tool of six statements to which they were asked to indicate agreement on a scale from completely disagree (1) to completely agree (10).[7] The statements indicated that reporting was the right thing to do and was the dentist's responsibility, that the dentist would always document the manifestations of suspected violence (positive) in addition to statements indicating that the dentist was too busy with patients to report, that the issue of violence was a family's business where nobody should interfere, and that it was embarrassing to check about violence (negative).

In the *fifth section*, respondents were asked whether they would report suspected violence to the police, social services agencies/Ministry of Social Affairs, Ministry of Health, non-governmental organizations, or others.

All the data were collected by four trained data collectors. The survey was piloted and the necessary modifications were done. It took around 10 min to finish the questionnaire, in both printed and electronic forms (Google Forms).

### Statistical analysis

SPSS software version 25 was used for data entry and analysis. Statistical analysis was carried out by using chi-squire test to compare categorical data, whereas Student's *t*-test and analysis of variance (ANOVA) were used to compare the numerical data. Logistic regression model was applied to identify the predictors of negative perception toward reporting violence. A scoring system was used to calculate the total negative perception and professional attitude scores for every dentist, and the percentage mean score (PMS) was calculated. The levels of perception were categorized as follows: positive (≤60%), neutral (>60%–<80%), and negative (≥80%). The levels of attitude were calculated as follows: positive (≥80%), neutral (>60%–<80%), and negative (≤60%). Significance was considered at $P \leq 0.05$.

## Results

### Personal characteristics

Table 1 shows the distribution of dentists according to some personal characteristics. Nearly one-half of them were males (52.8%), specialists/consultants (49%), and those who had no children (54.3%). The majority of them were Saudis (90.6%), those who perceived ability to identify victims of violence (87%), and those working for academic sectors (40.1%). Only 22.9% of dentists reported receiving previous training in abuse management.

### Perception toward reporting violence

The majority of dentists (88.4%) reported positive perception toward violence reporting, with a total percent mean score of 35.2 ± 19.6 (positive perception). Females had more positive perception than males (93% vs. 84.3%, $\chi^2 = 6.71$, $P = 0.0034$) [Table 2]. The PMSs of negative perception were significantly lower (in favor of positive perception) among Saudis ($t = 2.03$, $P = 0.043$), those who had previous training in abuse management ($t = 3.02$), $P = 0.003$), those who perceived ability to recognize violence ($t = 2.61$, $P = 0.011$), and those working for academic sectors ($F = 3.32$, $P = 0.037$) [Table 3]. After adjusting for potential confounders, negative perception was significantly predicted by the non-Saudi nationality ($\beta = -7.67$, $P = 0.028$) and those who had no previous training in abuse management ($\beta = -7.04$, $P = 0.004$) [Table 4].

### Attitude toward reporting violence

The majority of dentists (68%) reported positive attitude toward reporting violence, with a total percent mean score of 83.5 ± 15.0 (positive attitude), with no gender difference (71.3% vs. 64.9%, $\chi^2 = 4.03$, $P = 0.133$) [Table 2]. The PMSs of perception were significantly higher (in favor of positive attitude) among only dentists who reported ability to recognize violence ($t = 3.19$, $P = 0.002$) [Table 3].

**Table 1: Personal and professional background of participants**

| | n (%) |
|---|---|
| Nationality | |
| Saudi | 328 (90.6) |
| Non-Saudi | 35 (9.4) |
| Gender | |
| Male | 192 (52.8) |
| Female | 171 (47.2) |
| Has no children | 197 (54.3) |
| Specialization | |
| General practitioner | 185 (51.0) |
| Specialist/consultant | 178 (49.0) |
| Type of practice | |
| Private sector | 110 (30.4) |
| Public sector | 107 (29.6) |
| Academic sector | 146 (40.1) |
| Received training in abuse management | 22 (22.9) |
| Ability to identify victims of violence | 317 (87.0) |

**Table 2: Levels of perception and attitude to reporting suspected violence among dentists**

| | Positive | | Neutral | | Negative | | mean |
|---|---|---|---|---|---|---|---|
| | No | % | No | % | No | % | $\bar{x} \pm SD$ |
| Perception | | | | | | | |
| Male | 160 | 84.3 | 26 | 13.6 | 4 | 2.1 | 36.3 ± 20.9 |
| Female | 159 | 93.0 | 10 | 5.8 | 2 | 1.2 | 34.0 ± 18.1 |
| Total | 320 | 88.4 | 36 | 9.9 | 6 | 1.7 | 35.2 ± 19.6 |
| | | | $\chi^2 = 6.71$, p = 0.0034* | | | | t = 1.1, p = 0.27 |
| Attitude | | | | | | | |
| Male | 124 | 64.9 | 40 | 20.9 | 27 | 14.2 | 82.2 ± 15.9 |
| Female | 122 | 71.3 | 36 | 21.1 | 13 | 7.6 | 84.9 ± 14.0 |
| Total | 246 | 68.0 | 76 | 21.0 | 40 | 11.0 | 83.5 ± 15.0 |
| | | | $\chi^2 = 4.03$, p = 0.133 | | | | t = 1.74, p = 0.08 |

Higher perception scores reflect more negative perception. Higher attitude scores reflect more positive attitude.

**Table 3: Percentage mean scores (standard deviation) of perception and attitude toward violence reporting and associated factors among dentists**

| Variable | | Perception | Attitude |
|---|---|---|---|
| | | $\bar{x} \pm SD$ | $\bar{x} \pm SD$ |
| Gender | Male | 36.3 ± 20.9 | 82.2 ± 15.9 |
| | Female | 34.0 ± 18.1 | 84.9 ± 14.0 |
| | *t*, *P* value | 1.1, 0.27 | 1.74, 0.083 |
| Age (years) | <30 | 34.9 ± 19.2 | 83.1 ± 14.5 |
| | >30 | 35.5 ± 20.1 | 83.9 ± 15.6 |
| | *t*, *P* value | 0.34, 0.73 | 0.5, 0.58 |
| Having children | Yes | 35.5 ± 20.4 | 83.9 ± 15.9 |
| | No | 34.0 ± 18.9 | 83.1 ± 14.3 |
| | *t*, *P* value | 0.29, 0.77 | 0.47, 0.64 |
| Nationality | Saudi | 34.5 ± 19.3 | 83.7 ± 14.9 |
| | Non-Saudi | 41.7 ± 21.5 | 80.9 ± 15.9 |
| | *t*, *P* value | 2.03, 0.043* | 1.04, 0.30 |
| Specialty | Specialist | 36.6 ± 19.7 | 85.0 ± 14.4 |
| | GP | 33.9 ± 19.4 | 82.0 ± 15.5 |
| | *t*, *P* value | 1.33, 0.18 | 1.87, 0.062 |
| Sector | Private | 39.1 ± 21.1 | 82.6 ± 14.5 |
| | Public | 34.2 ± 14.1 | 83.9 ± 15.5 |
| | Academic | 33.0 ± 18.5 | 83.8 ± 15.1 |
| | *F*, *P* value | 3.33, 0.037* | 0.27, 0.77 |
| Experience | <10years | 35.3 ± 19.6 | 83.0 ± 14.6 |
| | >10 years | 35.1 ± 19.8 | 84.5 ± 16.0 |
| | *t*, *P* value | 0.08, 0.94 | 0.88, 0.38 |
| Perceived training | Yes | 29.6 ± 18.2 | 85.6 ± 12.5 |
| | No | 36.9 ± 19.7 | 82.8 ± 15.7 |
| | *t*, *P* value | 3.02, 0.003* | 1.50, 0.14 |
| Recognition of violence | Yes | 34.2 ± 19.8 | 84.7 ± 13.9 |
| | No | 41.5 ± 17.2 | 75.1 ± 19.6 |
| | *t*, *P* value | 2.61, 0.011* | 3.19, 0.002* |

*t* = Student's *t*-test, *F* = analysis of variance, SD = standard deviation, GP = general practitioner

*Statistically significant

## Discussion

Our results indicated a high level of dentists' willingness to report suspected violence, with the majority of respondents indicating positive perceived perception and positive professional attitude to report suspected violence. This finding is similar to those of previous studies in Kuwait[7] and Dutch Republic.[2] However, a low level of dentists' willingness to report suspected violence was shown in a previous study from Saudi Arabia,[8] which stated that only 3% reported suspected

**Table 4: Significant predictors of dentists' negative perception to report suspected violence**

| Variables | β | SE | *t* value | *P* value |
|---|---|---|---|---|
| Saudi vs. non-Saudi (Saudi = 1) | –7.670 | 3.482 | –2.202 | 0.028* |
| Training (yes = 1) | –7.041 | 2.445 | –2.880 | 0.004* |
| Recognition of violence signs (yes = 1) | –6.023 | 3.081 | –1.955 | 0.051 |
| Academic vs. others (academic = 1) | –3.593 | 2.068 | –1.737 | 0.083 |
| Constant | 50.459 | 4.384 | 11.509 | <0.001 |

*Statistically significant

SE = standard error

violence cases.[8] This discrepancy between the findings of these two studies might be due to different methodology and different targets of the study.

In our study, the majority of dentists reported their ability to recognize abuse signs. Ability to recognize abuse signs was the only factor associated with professional attitude to violence reporting. Training in abuse management is a necessity for all dentists. If training is not provided for practicing dentists, dentists are more likely to feel unprepared to undertake their role with confidence in violence screening and reporting.[1] In our study, unfortunately, the majority of dentists reported not having training in abuse management, and this training was a significant protective factor against negative perception to violence reporting. Thus, there is a need for educational intervention and training for dental practitioners. Previous studies[8,11] showed differences in dentists' perceived ability to identify victims of violence across countries, which might be attributed to variations in training requirements and opportunities across countries. This might explain the finding that negative perception was reported to be more by non-Saudi dentists in our study.

### Strengths and limitations

One of the limitations of the study is its cross-sectional design, which would not guarantee the causal association between the dentists' willingness to report violence and all other factors. Another limitation was that this study was a questionnaire-based one that might be subjected to a recall bias. Although this study has not reported the actual reporting practice by dentists but only their attitude to report, yet it reported an essential topic to be tackled in Saudi community with its conservative culture, that is, the willingness to report violence victim patients. However, this work reported an essential topic to be tackled in Saudi community with its conservative culture, that is, the willingness to report violence victim patients. All the previous studies measured the violence reporting mainly to children only, but this current study is the only one that dealt with adults. The discrepancies between the results obtained in the studies cited above and our own may be not only due to the respective modes of recruitment and data collection, but also due to the ethnic and racial diversity of the populations studied.[2,7,8,11]

## Conclusion

Almost all dentists have high professional attitude scores and low negative perception scores toward reporting violence, which reflect a good sense of responsibility toward their patients and community. Attendance of educational training sessions in abuse management must be a requirement for dental practice. Our results reflect the need for increasing awareness among dentists and their dental practitioners regarding reporting violence. As this will lessen violence, therefore, improving quality of life of the patient. Also, early intervention can prevent the risk of severe trauma cases or even death, and it usually has the benefits of reducing consequences to the community, as well as the physical and mental cost of treatment. As it may be as a result of continuous abuse that has been reserved from the abuser. Further studies to estimate the actual reporting of violence by dentists are recommended.

### Acknowledgement

This study was one of the Research Summer School program conducted under full supervision of the KAIMRC staff.

### Financial support and sponsorship

This study was fully supported by King Abdullah International Research Center (KAIMRC), Riyadh, Saudi Arabia. It was approved by the IRB of Ministry of National Guard – Health Affairs, Riyadh, Saudi Arabia [Ref.# RSS18/006/R].

### Conflicts of interest

There are no conflicts of interest.

### Authors contributions

All authors contributed equally in this study.

### Ethical policy and institutional review board statement

This study was approved by the Saudi Ministry of National Guard-Health Affairs (Ref.# IRBC/1360/18).

All procedures of the study were performed as per the the guidelines of Declaration of Helsinki. (The IRB is attached)

### Patient declaration of consent

Non applicable.

### Data availability statement

The data that support the findings of this study are available from the corresponding author, Hind Alfehaid, E-mail: alfehaid02@gmail.com, upon reasonable request.

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