Introduction

The World Health Organization (WHO) defines violence as “the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, which either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation.”[1,2] This definition is more elaborate than what is described in the Oxford English Dictionary where violence is stated as the “Behavior involving physical force intended to hurt, damage, or kill someone or something.”[2] It is important to note that by including the phrase “use of … power,” it recognizes that an act of violence can be not only a physical act but also an act of use of power by one person over another.[2,3] It means that in many cases, a person may cause harm to another person as a consequence of an action, even if it may not be the intention of that person. Thus, violence can happen without conscious intent and it is certainly not limited to only physical harm.[2,3]

Violence is a serious public health problem that has been increasing significantly over the last few years worldwide, and this change can be felt in every domain of life.[1,4] Yearly, more than 1 million people die as a result of violence.[4] Clinical examination of the victim by a trained physician is vital for abuse discovery.

Background: Violence is a critical public health problem resulting in more than 1 million yearly deaths. Clinical examination of the victim by a trained physician is vital for abuse discovery. Objective: The present study evaluated the medical students’ awareness levels about the concept of violence with the help of a questionnaire. Participants and Setting: The present study is a cross-sectional descriptive study and was conducted among 243 medical students from the Faculty of Medicine, King Abdulaziz University, from December 2018 to March 2019. Results: In our study, medical students showed good awareness of the concept of child violence, general violence, and female violence. The Internet was the primary source of knowledge about violence among female students, while the male students used social media. Almost three-fourths of the medical students wanted more information or training about violence. The male and female students shared a significant difference of opinion for a few categories like the concept of violence toward husbands, prevalence of violence, sources of knowledge, and having enough time to study violence.

Conclusion: In conclusion, the medical students’ current knowledge and attitude toward violence need to be better. Facing real-life situations can improve their awareness. Further, adding knowledge about violence to the curriculum would help the students to learn and deal with violent cases.

Keywords: Medical students, perceptions, violence

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million people die because of violence and numerous non-fatal injuries happen as well. Furthermore, violence has a negative impact on an individual's quality of life apart from contributing to disease, death, and disability. Since violence disturbs millions of lives in the long term, it is a serious risk factor for lifelong health and social problems.

In today's healthcare system, there is an acknowledgment for the need to have more efficient and corporate governance, in collaboration with the government health departments, so that domestic abuse cases are dealt with proper care. Clinical examination of the patient is the key to discovering abuse. Unsuccessful responses can discourage future help-seeking behavior and cause greater endangerment. So, it is the doctors' responsibility to maintain honesty in the medical profession. As professional values are getting worse, the development of the younger generation of medical professionals is negatively affected. A medical professional should have the required knowledge of ethical, social, and humanitarian values that affect healthcare. The medical students should be trained to communicate with the patients, their families, and the community effectively as well as deal with the cases that involve violence. A doctor should be able to establish and maintain professional limits and must take responsibility. Medical students should commit to the progress of the medical profession. They are the future doctors who will work in the primary healthcare and family health units. Therefore, the current primary healthcare providers and family physicians should know how much the medical students are aware of violence because, accordingly, the senior doctors have to educate and train the medical students to diagnose any violence victims in cases where the victims do not admit to being exposed to violence. A recent study conducted in 2021 found that educating medical students about elder abuse could allow them, as future doctors, to properly diagnose, understand, and support the old regarding maltreatment. Therefore, the current study is aimed to investigate the level of awareness among medical students about violence.

Methods

Ethical approval was obtained from the biomedical research ethics committee. This was a cross-sectional descriptive study conducted among undergraduate medical students from King Abdulaziz University from December 2018 to March 2019.

A questionnaire was utilized to achieve the study's aim, and the questionnaire contained 24 questions and paragraphs divided into three parts. The first part consisted of demographic information, which met the needs of the study. The second part was about the concept of violence, and the third part was about understanding the perceptions of the students about the causes of violence, complications, prevalence, and the sources of knowledge of violence.

The participants for this study were undergraduate medical students and 243 students were selected as participants forming the study group. Among the 243 students, 136 students were females and 107 were males.

Two groups of variables were set for the study viz. (independent variables, dependent variables). The independent variable in the study was gender. The dependent variables were the undergraduate medical students’ response toward different aspects of violence (concepts, causes, complications, prevalence, sources of knowledge, having teaching about violence in the curriculum, how to face and deal with violence).

The questionnaires were distributed among the medical students. Student consent was obtained for agreeing to fill the questionnaire. The questionnaires were collected from the students once they filled them out. The questionnaires that were not filled out correctly were disregarded.

The questionnaire results were analyzed using the Statistical Package for the Social Sciences (SPSS) software ver. 22.0 (IBM, Armonk, NY, USA). Data were presented as mean ± SD for numerical variables and as number-percentage for categorical variables. Statistical evaluation was performed using the Chi-square test and a P value < 0.05 was considered significant.

Results

The questionnaires from the students were screened and the data from 242 medical students were analyzed. Table 1 shows some of the demographic characteristics of the medical students included in this study. Out of the 242 medical students, 136 (56%) were female students and 107 (44%) were male students [Table 1]. Further, no significant difference was detected between the male and female students regarding their age and the secondary school where they studied [Table 1].

Next, the perception of the medical students regarding the concept of violence was analyzed. Table 2 and Figure 1 data clearly show that the students were highly aware of the concept of violence against a child (77.8%), followed by the general concept of violence (46.5%), and then, violence against women (16.0%) [Table 2 and Figure 1]. For the category—the concept of violence toward husbands—the results revealed significant differences among the genders, wherein the percentage of the students who were aware of it was higher among the male students than females (9.3% vs. 2.9%, P = 0.005) [Table 2].
the other hand, there was no significant difference in gender regarding the perception of the medical students for the rest of the concepts. Even there, the percentage of awareness was higher among the male students than the female students regarding the following concepts—violence toward a female, violence toward children, violence toward a wife, and violence toward a brother [Table 2]. In contrast, for the general concept of violence, a higher percentage of awareness was observed among the female students than the male students (48.5% vs. 43.9%, \( P = 0.068 \)) [Table 2].

Table 3 shows the perceptions of the medical students regarding the causes, complications, prevalence, and sources of knowledge of violence. Here, the highest awareness among the students was observed for the prevalence of violence (73.7%), followed by a committee of violence (67.1%), and then, about the complications of violence (45.7%) [Table 3]. The results revealed significant differences when analyzed in terms of gender. It was observed that a higher percentage of male students were aware of the concepts of the prevalence of violence (81.3% vs. 67.6%, \( P = 0.041 \)) and sources of knowledge (9.3% vs. 2.9%, \( P = 0.005 \)) than the female students [Table 3]. On the other hand, no significant difference regarding gender was observed for the rest of the variables. For the categories—causes of violence, complications of violence, and committee of violence—the male students were found to be more aware than the female students [Table 3]. Regarding the sources of knowledge, the Internet was the primary source of knowledge among the female students (36.8%), while social media was the main source of knowledge among the male students (29.0%), with no significant difference \(( P = 0.28 \)) [Table 3].

Next, the medical students’ perceptions regarding being taught about violence in the medical curriculum were analyzed. As shown in Table 4, the students reported that they were mainly taught about the violence in the fourth year (44.9%), while the central department for teaching was the Clinical Department (48.1%), and teaching was majorly done theoretically (97.3%); no statistically significant difference was observed among the responses of both the genders [Table 4]. However, the results revealed a significant difference in the gender for the category—having enough time to study violence, where the higher percentage of the male students gave an affirmative response than the female students (12.1% vs. 2.9%, \( P = 0.02 \)) [Table 4].

Table 5 and Figure 2 show the medical students’ perception about how to face and deal with a case of violence. In this category, a high percentage of the students acknowledged the scenario of facing a case of violence (78.2%), which was followed by their opinion about needing more information or training

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**Table 2: Perceptions of the medical students about the concept of violence**

|                                      | Female students total=136 n (%) | Male students total=107 n (%) | Total number of students=242 n (%) | Test of Sig | \( P \)  |
|--------------------------------------|---------------------------------|------------------------------|-----------------------------------|-------------|------|
| The concept of violence              | 66 (48.5%)                      | 47 (43.9%)                   | 113 (46.5%)                       | 5.36        | 0.068|
| The concept of violence toward female| 18 (13.2%)                      | 21 (19.6%)                   | 39 (16.0%)                        | 2.24        | 0.32 |
| The concept of violence toward child | 104 (76.5%)                     | 85 (79.4%)                   | 189 (77.8%)                       | 3.21        | 0.092|
| The concept of violence toward wife  | 16 (11.8%)                      | 17 (15.9%)                   | 33 (13.6%)                        | 1.22        | 0.54 |
| The concept of violence toward husband| 4 (2.9%)                       | 10 (9.3%)                    | 14 (5.8%)                         | 10.5        | 0.005*|
| The concept of violence toward brother| 6 (4.4%)                       | 11 (10.3%)                   | 17 (7.0%)                         | 4.19        | 0.123|

**Table 3: Perceptions of the medical students about the causes, complications, prevalence, and sources of knowledge of violence**

|                                      | Female students total=136 n (%) | Male students total=107 n (%) | Total number of students=242 n (%) | Test of Sig | \( P \)  |
|--------------------------------------|---------------------------------|------------------------------|-----------------------------------|-------------|------|
| Causes of violence                   | 46 (33.8%)                      | 47 (43.9%)                   | 93 (38.3%)                        | 4.59        | 0.101|
| Complications of violence            | 54 (39.7%)                      | 57 (53.3%)                   | 111 (45.7%)                       | 4.80        | 0.09 |
| Prevalence of violence               | 92 (67.6%)                      | 87 (81.3%)                   | 179 (73.7%)                       | 6.36        | 0.041*|
| Committee of violence                | 90 (66.2%)                      | 73 (68.2%)                   | 163 (67.1%)                       | 1.28        | 0.52 |
| Sources of knowledge                 | 4 (2.9%)                        | 10 (9.3%)                    | 14 (5.8%)                         | 10.5        | 0.005*|
| Internet                             | 50 (36.8%)                      | 30 (28%)                     | 80 (32.9%)                        | 3.77        | 0.28 |
| Curriculum                           | 14 (10.3%)                      | 17 (15.9%)                   | 31 (12.8%)                        |             |      |
| Colleagues                           | 28 (20.6%)                      | 28 (26.2%)                   | 56 (23.0%)                        |             |      |
| Social media                         | 44 (32.4%)                      | 32 (29.9%)                   | 76 (31.3%)                        |             |      |
Table 4: Comparison between the female and male medical students’ perceptions regarding being taught about violence in the medical curriculum

| Perception                                      | Female students | Male students | Test of Sig | P    |
|-------------------------------------------------|-----------------|---------------|-------------|------|
| Do you have enough time to study violence?      | 4 (2.9%)        | 13 (12.1%)    | 7.8         | 0.02*|
| Which year?                                     |                 |               |             |      |
| Fourth                                          | 62 (45.6%)      | 47 (43.9%)    | 0.09        | 0.95 |
| Fifth                                           | 54 (39.9%)      | 43 (40.2%)    |             |      |
| Six                                             | 20 (14.7%)      | 17 (15.9%)    |             |      |
| Teaching department                             |                 |               |             |      |
| Academic                                        | 14 (10.3%)      | 14 (13.1%)    | 2.34        | 0.50 |
| Clinical                                        | 68 (50.0%)      | 49 (45.8%)    |             |      |
| Both                                            | 54 (39.7%)      | 44 (41.1%)    |             |      |
| Clinical or theoretical teaching                |                 |               |             |      |
| Clinical                                        | 2 (1.5%)        | 0 (0%)        | 3.3         | 0.34 |
| Theoretical                                     | 132 (97.0%)     | 103 (96.3%)   |             |      |
| Both                                            | 2 (1.5%)        | 4 (3.7%)      |             |      |

Table 5: Perception of the medical students about how to face and deal with the cases of violence

| Perception                                      | Female students | Male students | Test of Sig | P    |
|-------------------------------------------------|-----------------|---------------|-------------|------|
| Do you have an elective course for studying violence? | 6 (4.4%)        | 6 (5.6%)      | 1.7         | 0.47 |
| Are there committees or units of violence?      | 24 (17.6%)      | 17 (15.9%)    | 3.33        | 0.19 |
| Are you able to deal?                           | 34 (25.0%)      | 41 (38.3%)    | 9.21        | 0.0192|
| Do you need more information or training about violence? | 98 (72.1%)      | 81 (73.7%)    | 0.46        | 0.31 |
| Do you face a case of violence?                 | 112 (82.4%)     | 78 (72.9%)    | 3.14        | 0.076 |
| Do you know the ideal practice when you face a case of violence? | 38 (27.9%)      | 39 (36.4%)    | 2.02        | 0.123 |

Figure 2: Perceptions of the medical students about how to face and deal with the cases of violence

Table 5 and Figure 2. The results did not reveal a significant difference in terms of the gender of the participant. However, a higher percentage of the male students were aware of the need for more information and training, were able to face a violence case and knew the ideal practice whereas a higher number of female students were aware of the need of having a committee of violence and facing a violence case than their male counterparts [Table 5].

Discussion

The increasing number of cases of domestic violence worldwide is a serious cause of concern. Due to the cultural differences in the different societies of the world, most of the evidence regarding the prevalence of domestic violence has been reported from western countries, while there is a lack of evidence of such cases in Saudi Arabia. The examination of the victim by a clinician remains one of the most vital elements of abuse discovery. Therefore, it is imperative that medical students be trained to communicate with the patients, their families, and the community effectively, and deal with cases of violence.

Moreover, in the future, the medical students will work in primary healthcare units where they will be the first contact of cases exposed to violence. Training those medical students to deal with domestic violence cases will allow them to diagnose those cases effectively in a non-judgmental way. A study by Ramsay et al. reported that the primary care physicians received very little previous training in dealing with violence cases and only possessed the basic knowledge. Furthermore, the medical students felt that they were not prepared to ask pertinent questions related to violence; about 40% of them never asked about violence when examining an injured woman. Behavioral interventions (such as “SafeERteens”), which involve youth (high-risk group), can reduce their involvement with violence. These interventions can be successfully integrated into routine medical care in the primary healthcare units. Therefore, our current study investigated the level of awareness about violence among medical students. From the literature review, it is clear that violence toward the intimate partner is the most common type of violence reported; one out of three females have reported being exposed to a physical or sexual form of violence. It was estimated in different studies...
that only 5% of the female violence cases are detected in a hospital’s emergency department. It is also evident from the previous studies that the victims do not trust the health system even when they seek help for violence in their own lives. Also, they would rarely seek help from the relevant health facilities (only 18%). Physicians receive very little information about domestic violence during their medical studies. A recent study reported that adding seminars about violence into the curriculum could be adequate to provide the dental students the knowledge required to identify and refer any patient experiencing violence. In a study on child abuse, 41% of the medical students were exposed to information about child abuse and 74% believed that reporting child abuse is the legal responsibility of a physician. While a recent study also showed similar findings in a survey conducted among 351 medical students where 57.5% of the medical students opined that they received formal training on child abuse and neglect, and 77% of the participants wanted further training in dealing with the suspected cases of child abuse. In our study, it was observed that a higher percentage of medical students were aware of the concept of violence on children (77.8%), followed by having a general violence concept (46.5%), and then, female violence (16.0%) [Table 2]. Our results revealed significant differences in gender awareness for the concept of violence toward husbands, where a higher percentage of male students were aware than the female students (9.3% vs. 2.9%, P = 0.005) [Table 2]. On the other hand, no significant difference was observed for the rest of the concepts, however, the male medical students were more aware than the female students regarding the following concepts—violence toward a female, violence toward children, violence toward a wife, and violence toward a brother, whereas, regarding the general concept of violence, higher awareness was observed in the female participants than the male counterparts (48.5% vs. 43.9%, P = 0.068) [Table 2]. A study by Sugg et al. found that physicians thought delving into domestic violence cases was a private matter and they did not have the right to ask about it from their patients.

In our study, while understanding the perception of the students about the causes of violence, complications, prevalence, and sources of knowledge of violence, higher awareness was observed for the prevalence of violence (73.7%), followed by a committee of violence (67.1%), and then, a complication of violence (45.7%) [Table 3]. The results were compared gender-wise, and a significant difference was observed for the categories—prevalence of violence and sources of knowledge, where a higher percentage of the male participants were aware of these concepts than the female participants (81.3% vs. 67.6%, P = 0.041 and 9.3% vs. 2.9%, P = 0.005, respectively) [Table 3]. On the other hand, there was no significant difference regarding gender for the rest of the variables, even though the rate was higher among the males than females regarding the causes, complications, and a committee of violence. Regarding the sources of knowledge about violence, the Internet was the main source of knowledge among the female students (36.8%), while social media was the main source of information among the male students (29.0%) with no significant difference (P = 0.28) [Table 3].

Concerning studying about violence, participants of both genders, with no significant difference, reported the following: the main year of study was the fourth year (44.9%), the primary department responsible for teaching was the Clinical Department (48.1%), and the teaching was theoretical (97.3%) [Table 4]. Our results revealed that a higher percentage of the male students believed that they have enough time to study violence, whereas there were significantly fewer females sharing the same opinion (12.1% vs. 2.9%, P = 0.02) [Table 4]. These observations were similar to what was found in a study by Ernst et al., where the participants thought that the medical students should be made aware of where to seek help when they face any issues while dealing with cases of domestic violence. Regarding the perception of the medical students about how to face and deal with a case of violence, a higher rate was observed for the category—facing a case of violence (78.2%), followed by needing more information or training about violence (73.7%) [Table 5]. That is similar to what was found by a study by Gremillion where the physicians complained of having inadequate information about domestic violence. Our results revealed no significant difference about the gender of the participant but more male participants were aware regarding the need for more information and training, able to face violence case, and knowing the ideal practice than the female participants, while a higher percentage of the female respondents chose the need to have a committee of violence and facing a violence case.

**Conclusion**

The present study demonstrates that the knowledge and attitude of students toward violence need to be better. Facing real-life situations is predicted to improve their awareness. Additionally, knowledge about violence should be added to the medical students’ curriculum as it will help the students learn and apply desirable behavior when dealing with cases of violence.

**Key points**

- Medical students showed good awareness of the concept of child violence, general violence, and female violence, and the Internet and social media were the primary sources of knowledge.
- Almost three-fourths of the medical students wanted more information or training about violence.
- The male and female students shared a significant difference of opinion for the concept of violence toward husbands, prevalence of violence, sources of knowledge, and having enough time to study violence.
- Overall, the knowledge and attitude of students toward violence need to be better.
- Facing real-life situations is predicted to improve their awareness and information about violence should be added to their curriculum.
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Conflicts of interest
There are no conflicts of interest.

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