

## WORK-RELATED ASSAULTS ON NURSING STAFF IN RIYADH, SAUDI ARABIA

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**هدف الدراسة:** تحديد مستوى العنف الموجه للممرضات داخل المستشفيات في الرياض  
**طريقة الدراسة:** باستخدام اسلوب الدراسة المقطعية تم توزيع 500 استمارة عشوائيا بين الممرضات في مستشفيات القطاعين الحكومي و الخاص بالرياض. بالاضافة الى المعلومات الشخصية فقد احتوى الاستبيان على اسئلة عن مدى تعرض الممرضات للعنف وخصائص المعتدي وأسباب العنف من وجهة نظر الممرضات وكذلك المستشفى والقسم الذي تعرضن فيه للعنف.  
**نتائج الدراسة:** تم ملء 434 استبيانا 341 ممرضة و 93 ممرض بمتوسط أعمار  $36,1 \pm 6,97$  سنة. أفاد 235 تعرضهم للعنف , 93,2 % منهم تعرضوا للعنف بالكلام. 32,8 % هددوا كلاميا بالإيذاء البدني , 28,1 % تعرضوا لمحاولة الإيذاء البدني, 17,4 % للتحرش الجنسي بينما كان 16,1 % ضحايا الإيذاء البدني. العاملات في قسمي الطب النفسي و الطوارئ أكثر عرضة للعنف (84,3% و 62,1% بالتتابع). ذكرت الممرضات ان النقص في اعداد رجال الأمن (82%) و كذلك قلة عدد الممرضات (63%) وعائق اللغة (36,3%) وكذلك تحرك رواد المستشفى داخلها بدون قيود (21,5%) هي أهم أسباب العنف داخل المستشفيات.  
**التوصيات:** زيادة عدد رجال الأمن وهيئة التمريض داخل المستشفيات وخلق وعي عام في المجتمع عن تلك المشكلة تمهيدا لتغيير سلوك الأفراد في معاملة الممرضات و الممرضين.

**الكلمات المرجعية:** العنف في بيئة العمل, الخطر المهني, مخاطر التمريض

**Objective:** To determine the extent of work-related violence against nurses in hospitals in Riyadh.

**Materials and methods:** Through a cross sectional approach, a self administered questionnaire was offered to 500 active-duty nurses selected randomly. In addition to the demographic characteristics, the questionnaire inquired about exposure to workplace violence, hospital and department of employment at the time of exposure, characteristics of the assailant and nurses' perception of the causes of violence.

**Results:** Out of 434 respondents, 93 (21.4%) were males, and 341 (78.6%) females. The mean age was  $36.1 \pm 7.97$  years. Workplace violence was experienced by 235 (54.3%) nurses. Of these 93.2% were exposed to harsh insulting language, 32.8% to verbal threat, 28.1% to attempts of physical assault, 17.4% to sexual harassment and 16.2% to actual physical assault. Nurses working in psychiatry and emergency units had the highest rate of exposure to violence (84.3% & 62.1% respectively) Nurses perceived shortage in security personnel (82%), shortage in nursing staff (63%), language barrier (36.3%) and unrestricted movement of patients in hospitals (21.5%) as causes of their exposure to violence.

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**Recommendations:** *improve security in hospitals by increasing the number of security officers on duty and increase the community's awareness of the problem.*

**Key Words:** *Workplace violence , occupational risk, nursing hazards.*

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## INTRODUCTION

Assaults on health professionals in the workplace is a public health and legal problem.<sup>1</sup> Violence against nurses is a silent epidemic.<sup>1,3</sup> Until relatively recently, little attention had been paid to this problem. Today, concerns are rising about the escalating levels of violence against nurses.<sup>4</sup>

Nurses are the primary care givers in hospitals and are more likely to encounter violence because of the amount of time spent in direct patient care.<sup>5</sup> Most nurses are not trained to manage explosive situations.<sup>5,6</sup> They are likely to under report exposure to violence because of their fear that employers may deem assaults the result of their negligence or poor job performance.<sup>1</sup> In addition, some nurses consider violence as part of their job.<sup>7,8</sup>

Violence against nurses impairs job performance after the incident.<sup>9</sup> It also reduces job satisfaction and may compel nurses to leave their job.<sup>10</sup>

Though, an international phenomenon, there are few cross-cultural studies on violence in health care.<sup>7</sup> In Saudi Arabia, nurses as well as attendants of hospitals are recruited from different geographical and cultural areas. The aim of the present work is to determine the extent of violence against nurses working in hospitals in Riyadh city, in order to direct future management strategies.

## MATERIAL AND METHODS

The study was conducted with a cross sectional design. On the assumption that one quarter of nurses were exposed to violence at work (20-30%) a sample size of 288 nurses was required at 95% level of

significance. Expecting a moderate participation rate, 500 nurses were asked to participate in the study. A list of all hospitals in Riyadh was obtained from different sources. Using a proportional allocation method, five hospitals were chosen as follows: one university hospital, one MOH hospital, one private hospital, the mental health hospital and one military hospital.

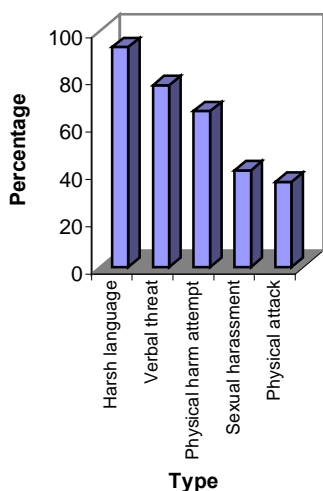
Within the health care facilities, the nurses were selected randomly and confidentially offered a structured questionnaire. In addition to the personal characteristics, the questionnaire inquired about exposure to violence in the hospital, the type of violence, departments of employment at the time of exposure, their perception of causes of violence in the hospitals and characteristics of the assailant.

Each questionnaire was revised for completeness and consistency in the same hospital. SPSS version 9 was used for data tabulation and analysis. Occurrence of violence was expressed as percentage. Chi square test was used to examine the association between various demographic and workplace factors and violence against nurses at 95% level of significance.

## RESULTS

Out of 500 nurses invited to participate in the study, 434 (86.8%) completed the questionnaire; 93 males (21.4%) and 341 females (78.6%). Their mean age was  $36.1 \pm 7.97$  years. Two hundred thirty five nurses (54.3%) reported a history of violence against them. Of these, 219 (93.2%) were exposed to harsh insulting language, 77(32.8%) to verbal threat,

66(28.1%) to attempts of physical assault, 41(17.4%) to sexual harassment and 36(16.2%) were victims of physical assaults (Figure 1).



**Figure 1:** Types of violence against nurses, Riyadh 2002

**Table 1:** Characteristic of the assailants on nurses, Riyadh 2002

Characteristic	No. (%)
<i>Status:</i>	
Patients	143 (60.8)
Patients' companion	116 (49.4)
Physician	58 (24.7)
Other nurse	62 (26.4)
Others	10 (4.3)
<i>Gender:</i>	
Male	215 (91.5)
Female	91 (38.7)
<i>Age:</i>	
Child	12 (5.1)
Adolescent	33 (14.4)
Adult	76 (32.3)
Middle age	88 (37.4)
Elderly	27 (11.5)
<i>Language:</i>	
Arabic	165 (70.2)
English	21 (8.9)
Other	54 (22.9)
<i>Drug user</i>	48 (20.4)

Table 1 shows that the assailants were patients (60.9%), patients' companions (49.4%), physicians (24.7%) and nurse colleagues (26.4%). More than 90% of the nurses exposed to violence were attacked by males and 37.4% by middle-aged assailants. Arabic was the mother tongue of 70.2% of the assailants. Only 20.4% of them were drug users.

**Table 2:** Demographic characteristics of nurses and exposure to violence, Riyadh 2002

Characteristic	Exposed to violence No. (%)	Not exposed to violence No. (%)	p-value
<i>Age in years:</i>			
<30	59 (25.1)	47 (23.7)	<0.001
30-	89 (37.9)	74 (37.4)	
40-	65 (27.7)	77 (38.9)	
50-60	22 (9.4)	1 (0.5)	
<i>Gender:</i>			
Male	75 (31.9)	18 (9.1)	*
Female	160 (68.1)	181 (90.9)	
<i>Nationality:</i>			
Saudi	17 (7.2)	2 (1.0)	*
Other Arabs	38 (16.2)	19 (9.6)	
Indians	23 (9.8)	63 (31.8)	
Canadians	18 (7.7)	1 (0.5)	
Filipinos	131 (55.7)	110 (55.3)	
Others	8 (3.4)	3 (1.5)	

\*p-value approached zero

Table 2 shows that 37.9% of the nurses abused were in their fourth decade. Those in the fifth decade constituted (27.7%) of those exposed to violence and 38.9% of those not exposed to violence. There was a significant statistical association between age and exposure to violence ( $p < 0.001$ ). Females constituted the majority of those exposed (68.1%) and those nurses not exposed (90.9%). More than half of the nurses exposed and those not exposed were Filipinos (55.7% and 55.3% respectively). The association between both gender and nationality with exposure to violence was statistically significant ( $p < 0.001$ ).

Table 3 shows that the nurses who worked in mental health hospital constituted 23% of nurses exposed to violence and that only 4% of them were not exposed. One fifth of the nurses exposed to violence worked in psychiatry departments (20.9%). Hospital, department and duration of working hours are significantly associated with the exposure to violence ( $p < 0.001$ ).

**Table 3:** Work-related factors and violence against nurses, Riyadh 2002

Factor	Exposed to violence No. (%)	Not exposed to violence No. (%)	P-value
<i>Hospital:</i>			
General	116 (49.4)	112 (56.6)	<0.001
Mental	54 (23.0)	8 (4.0)	
Private	65 (27.7)	79 (39.4)	
<i>Department:</i>			
Emergency	26 (11.0)	32 (16.3)	<0.001
Medicine	75 (31.9)	18 (9.0)	
Psychiatry	49 (20.9)	21 (10.8)	
Surgery	16 (6.7)	37 (18.7)	
Ob/Gyn	40 (17.2)	75 (38.0)	
Pediatric	29 (12.3)	14 (7.2)	
<i>Hours of work:</i>			
≤8	126 (53.6)	86 (43.4)	<0.001
9-12	90 (38.3)	111 (56.1)	
>12	19 (8.1)	2 (1.0)	

Nurses perceived that the shortage of security personnel (82%), shortage of nursing staff (63%), inability to understand the language (36.3%) and unrestricted movement of patients in hospitals (21.5%) were the main causes of violence against them.

## DISCUSSION

For many years, health care workers have faced a significant amount of the risk of job-related violence. Assaults represent a serious safety and health hazard for this service industry and violence against its employees is on the increase.<sup>1</sup> The present work revealed that 54.3% of the nurses in Riyadh had been exposed to violence.

Similar findings were reported by Whitehorn and Nowlan who reviewed the issue of nurse abuse in Canada and found that half of all registered nurses have been physically assaulted in the workplace.<sup>11</sup> A higher rate was reported by Erickson et al where 82% of the studied nurses in mid-south USA reported exposure to patient assaults in the course of their duties.<sup>12</sup> This rate can not be generalized as a convenient sample from emergency departments was used.

A survey conducted in emergency departments, ICU and general floor nurses in Florida revealed that 88% and 74% of nurses were victims of verbal and physical assaults respectively in one year.<sup>13</sup> The present work with a somewhat higher rate of verbal assaults (93.2%), but a much lower rate of physical assaults (16.2%) may be due to cultural and environmental variation. Graydon et al reported the same pattern of dominance of verbal abuse in Canada.<sup>14</sup>

Many studies revealed that nurses in the emergency and psychiatric departments were at a significantly greater risk of assaults.<sup>3,15</sup> The present work in which 62.1% and 84.3% of the nurses working in emergency and psychiatry departments were victims of violence respectively, is in agreement with this. A multiregional study in a psychiatric setting in the USA found that 76% of nurses had been physically assaulted at least once.<sup>16</sup> However, studies revealed that mental health nurses seem to be better able to control aggressive situations than general nurses who tended to rely more heavily upon the help of others.<sup>4,17</sup>

The present work found that there was more violence in mental hospitals (87.1%) than the general hospitals (50.9%) and in the private hospitals (45.1%). In the same vein, Grenade and Mac Donald in UK reported that assault rate was much higher in mental hospitals than in the general hospitals.<sup>17</sup>

The current study showed that the most common violent assailants were middle aged. Derazon et al reported the same finding, where middle-aged men of low socioeconomic level constituted the majority of violent patients.<sup>18</sup> The lack of communication may be the reason for the high percentage of Arabic speaking assailants (70.2%), for coming from a different linguistic background, the nurses may not be able to communicate effectively.

On the demographic characteristics of nurses, the present study reveals that male nurses were more exposed to violence than females. This is consistent with the oriental culture which considers assault of males on females a shameful behaviour. It also reveals that age was associated with exposure to violence, but this may be explained as a cumulative effect.

Nurses in the present work perceived that the shortage of nursing staff and security personnel were the main causes of violence against them. In agreement with this finding Lee et al found that high patient / personnel ratio in hospitals is associated with increased risk of violence.<sup>3</sup> Occupational Safety and Health Administration (OSHA) reported that low staffing levels was a major cause of violence.<sup>1</sup> Other studies revealed that recreational drug usage and alcohol was a third cause of violence.<sup>18</sup> The present work found that one fifth of the assailants were drug users.

From this study, it is clear that violence against nurses is a serious public health problem and an improvement in the security provided in hospitals may help to alleviate. It is also recommended that the community awareness of this problem be improved and some means found to change the attitude of patients and the community towards nurses.

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