Workplace violence: a survey of paediatric residents

Karen Judy and Jill Veselik

**Background** Paediatric residents are often exposed to verbal abuse and/or physical assaults from patients and patients’ families during the course of their training. Residents may benefit from further training on how to prevent and respond to workplace violence.

**Aims** To determine the prevalence of workplace violence in paediatric residency training programmes.

**Methods** In 2007, a 25-item web-based questionnaire about experiences of verbal and/or physical abuse while on duty was distributed to 1211 paediatric residents at all training levels from 25 paediatric programmes.

**Results** A total of 541 questionnaires were returned giving a 45% response rate. In total, 33% of the respondents had been verbally abused or physically assaulted by patients and/or patients’ families during their residency programme, although verbal abuse was much more common than physical assaults. In total, 71% of respondents reported having no teaching about workplace violence during their residency training. The majority (74%) indicated that they would like to receive more training in managing angry patients and families.

**Conclusions** Paediatric residents are often exposed to verbal threats during the course of their work. They are also at risk of physical assaults by angry patients and/or families. Paediatric residents require more training on how to prevent and respond to workplace violence, and this important topic should be incorporated into the paediatric residency curriculum.

**Key words** Paediatric residents; physical assaults; verbal abuse; workplace violence.

**Introduction**

The National Institute for Occupational Safety and Health defines workplace violence as ‘acts (including physical assaults and threats of assaults) directed towards persons at work or on duty’ [1]. The health care sector leads all other industry sectors in incidence of non-fatal workplace assaults, and workplace violence is an increasing concern in the health care sector. The United States Bureau of Labor Statistics (BLS) reported 97 homicides in the health services in 2006 [2]. Fortunately, the vast majority of workplace violence consists of non-fatal assaults. BLS data state that in 2000, 48% of all non-fatal injuries from occupational assaults and violent acts occurred in health care and social services. Nurses, aides, orderlies and attendants suffered the most non-fatal assaults resulting in injury [3]. Most of these occurred in hospitals, nursing and personal care facilities and residential care services. Violence in emergency departments (EDs) is not an uncommon phenomenon, with the majority of the incidents in the form of verbal threats or abuse [4]. Psychiatric departments experience a large number of violent episodes towards staff. In one study, 43% of respondents reported being threatened and 25% assaulted. Work experience was a protective factor but not a guarantee against violent events [5]. Guy and Brady [6] reported that more experienced clinicians often find ways to avoid working in settings with patients they suspect of having greater potential for violence. Nolan [7] reported that over half of psychiatrists in his study had been exposed to violence during the course of the last year compared to three-quarters of the nurses. Although many health care workers believe that workplace violence is increasing, there is a paucity of data to support these claims due to low reporting rates. The problem is further exacerbated by a lack of agreement on the definition of what constitutes aggression and violence within health care professions [8].

In the USA, paediatric residents often encounter potentially violent or aggressive patients and/or families in the course of their work. Residents are often the first physician a patient will encounter during their illness experience. In families, when patients and visitors use health care services, it is often with feelings of anxiety, frustration and loss of control; they frequently encounter long waiting times, high medical costs, fragmented services and
understaffed and frustrated workers. Families may be dangerous because they are dealing with stressful situations, have a history of psychiatric problems and may be involved in custody battles or domestic violence. Paediatric residents’ experience with workplace violence has not been well documented. In fact, there are little data on workplace violence in areas other than psychiatric and EDs. A study in The Netherlands found that aggression in connection with paediatric care was reported by 78% of respondents, especially verbal aggression directed at doctors with little work experience [9]. A study of violence in the paediatric ED found that 75% of paediatric ED directors reported one or more verbal threats per week. A total of 77% reported one or more physical attacks on staff per year and 25% reported actual injury to staff [10].

Several recent incidents of violence or near-violence inspired us to investigate the prevalence of paediatric residents’ experience with workplace violence. We hypothesize that residents are inadequately trained to handle such workplace violence and that they would benefit from further training on how to prevent and respond to workplace violence. The data generated from this study will help residency programmes to plan specific educational interventions regarding workplace violence.

Methods

A total of 25 US paediatric residency programme directors attending the National Paediatric Programme Director meeting in 2007 were recruited to participate in this study. The study sample represents 13% (25/194) of paediatric residency training programmes from different regions of the country. These directors agreed to distribute a self-administered web-based questionnaire addressing resident exposure to verbal or physical abuse from patients and/or patients’ families to residents in their programmes. The survey included five main (yes/no) questions about resident’s experience with verbal or physical assaults in their role. These included questions about the frequency of assaults, whether the abuse or assault was reported, whether the respondent had had any teaching about workplace violence during their residency training and whether they wanted to receive more training. For any positive responses, respondents were asked additional follow-up questions on whether the abuse or assault was reported, whether any action was taken against the perpetrator, whether there had been any impact on the respondent’s ability to perform their duties, whether other members of the health care team were involved in the abuse and reasons for non-reporting.

Verbal abuse or physical abuse was not defined in the survey but left open to interpretation by the respondent.

Given the survey nature of this study, percentages of respondents were computed. Only two tests of statistical significance were conducted. In both cases, the Z-test for the difference in independent proportions was used.

Results

Participating programmes ranged in size from 13 to 150 residents. In total, 541 of 1211 (45%) eligible residents completed the web-based questionnaire. Response rates according to postgraduate level (PL) or year from medical school graduation are illustrated in Table 1.

In total, 70% of respondents were female, and 91% were from academic residency programmes (hospitals affiliated with a university).

A total of 178 (33%) were verbally or physically assaulted by patients or patients’ families during their residency training. Verbal abuse was more common than physical abuse. A total of 174 residents (32%) were verbally assaulted during their residency training, while only 50 (9%) responded that they had been physically assaulted ($z = 9.30, P < 0.001$).

Residents were more likely to formally report verbal abuse than physical abuse. Of residents who responded that they had been verbally abused, 37% had formally reported the abuse at their institution, while only 12% (6/50) who were physically assaulted formally reported the incident. Table 2 illustrates the recipients that residents were most likely to report the abuse to.

Of the 174 respondents who experienced verbal abuse, 63% said that they did not report the incident. Of those, only 12 revealed the reason why there was no report. Five people said a report would not matter, four said the...
incident did not significantly affect work, two said that a report would be too time consuming and one noted that there was no injury involved.

In total, 45% of those who reported verbal abuse also said that action was taken against the perpetrator, but only one individual (17%) who reported physical abuse noted that such action was taken. In addition, a greater percentage of residents reported that verbal abuse impacted on their ability to perform their duties (38%) compared to those who experienced physical abuse (17%). Although the difference in these percentages is notable, statistical significance was not reached.

Typically, more than one hospital staff member was involved in the incident. Table 3 shows the distribution of those who were involved. In all, this information was reported by 65% of the residents who reported being verbally abused. Among those who reported experiencing physical abuse, only one respondent noted that another staff member was involved in the incident.

In total, 71% of paediatric residents reported having no teaching about workplace violence during their residency training. The majority of respondents (n = 399, 74%) thought that they would benefit from additional training in managing angry patients and families.

**Discussion**

Over a third of paediatric residents experienced some form of verbal and/or physical abuse from patients and/or patients’ families. In our study, verbal abuse was more common than physical abuse. In total, 32% of respondents reported that they had been verbally abused, while only 9% reported that they had been physically abused during their training. The literature does not contain much information on residents’ (especially paediatric residents’) experience with workplace violence. In total, 71% of paediatric residents in our survey reported having no teaching about workplace violence during their training. Indeed, 70% of US workplaces do not have a formal programme or policy that addresses workplace violence [11]. The majority of paediatric residents in our study believed that they would benefit from additional training in managing angry patients and families.

The survey design of our study has several limitations. The survey was voluntary with no incentive to complete the questionnaire; this may explain the low response rate. Our data are based on resident recall of events, so possibly under-represents the true incidence of verbal and physical assaults. We did not define verbal abuse or physical abuse in our questionnaire; the meaning was open to interpretation. It is possible that the respondents were biased in the direction of greater experience with and concern about workplace violence. In addition, many residents did not complete the entire survey resulting in smaller sample size for some items.

Our findings are similar to Hogh’s survey of health care workers that documented that nearly one-third of respondents had been exposed to violence or threats of violence [12]. The rates of verbal abuse reported in our study were lower than those in other studies. The rates of physical abuse in our study were higher than two studies and lower than one study (Lynch). A study from the UK reported that over half of the 380 general practitioner respondents reported experiencing verbal abuse in the preceding year at work, but only five (1%) reported being threatened with a weapon and only one (0.2%) reported physical injury [13]. Lynch reported that doctors were verbally abused by patients and relatives in 65 and 59% of intensive care units, respectively. He reported that doctors experienced physical abuse by patients and relatives in at least 38 and 8% of intensive care units, respectively [14]. In 1991, Hobbs [15] did a study that reported an annual rate of physical injury of 3.8%.

In our study, verbal abuse was more commonly reported by paediatric residents than physical abuse. This is in contrast to much of the literature in which non-physical violence is documented less frequently than physical assaults. A Canadian study documented two of 646 verbal abuse cases reported by physicians and only three of 242 physical injuries due to abuse reported [16]. Residents reported incidents of verbal abuse most commonly to the attending physician. Physical abuse was most commonly reported to security, followed by the attending physician. When health care workers were asked why they did not report workplace violence, they most commonly stated that the incident was not associated with injury or lost work. Reporting is said to be too time consuming, lacks supervisory support and reporting would not make any difference [17]. This is consistent with our findings. Of note, more residents reported that action was taken against the perpetrator of verbal abuse than physical abuse. The ‘action’ was not clarified.

Interestingly, in our study, more residents reported that verbal abuse impacted on their ability to perform than those who were physically abused. Other staff members (including nurses, other residents, ancillary staff and medical students) were involved in, and probably negatively impacted by, every incident of verbal abuse. Researchers including Gerberich et al. found that the negative consequences associated with such violence are substantial. Health care workers’ experiences with non-physical and physical violence are increasingly recognized for their

**Table 3. Other staff members involved in incidents of verbal and physical abuse**

<table>
<thead>
<tr>
<th></th>
<th>Verbal abuse (N = 65), n (%)</th>
<th>Physical abuse (N = 6), n (%)</th>
</tr>
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<tbody>
<tr>
<td>Nurses</td>
<td>34 (81)</td>
<td>1</td>
</tr>
<tr>
<td>Other residents</td>
<td>26 (62)</td>
<td></td>
</tr>
<tr>
<td>Ancillary staff</td>
<td>12 (29)</td>
<td></td>
</tr>
<tr>
<td>Medical students</td>
<td>5 (12)</td>
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association with decreased job satisfaction, increased occupational strain and poor patient care outcomes [18]. The most predominantly reported consequences of patient aggression on nurses are anger, fear or anxiety, post-traumatic stress disorder symptoms, guilt, self-blame and shame [19]. Exposure to so-called minor incidents such as repeated threats may in the long run be as devastating as one major incident [20]. Although most physical injuries heal relatively quickly, psychological and emotional wounds may linger and interfere with normal working and leisure lifestyle for months or years after the incident.

The high incidence and adverse consequences of verbal and physical assaults, in addition to the lack of formal teaching on workplace violence, suggest that all paediatric residents and, indeed, all residents should receive training in recognition, management and prevention of workplace violence. A universal curriculum on workplace violence and managing difficult encounters should be implemented during resident orientation, possibly through the Graduate Medical Education office. Communication skills training must include de-escalation and defusing of potentially dangerous encounters. A centralized systemized reporting system should be implemented through the security office in every training institution to document incidents of workplace violence and allow support and rehabilitation of the victims. Violence must not be tolerated in any of our training institutions.

The number of incidents reported in our pilot merit further investigation of this issue. A prospective study may be helpful in clarifying this issue further.

### Key points
- More than one-third of residents who completed our survey reported being verbally or physically assaulted by patients or patients’ families during their paediatric residency training.
- Seventy-one per cent of paediatric residents reported having no teaching about workplace violence during their residency training.
- The majority thought that they would benefit from additional training in managing angry patients and families.

### Conflicts of interest
None declared.

### References