

ORIGINAL ARTICLE**Workplace violence towards healthcare providers in Catalan Pediatric Emergency Departments**Claudia Casas¹, Joan Valls¹, Cristina Parra^{1,2,3}, Victoria Trenchs^{1,2,3}, Carles Luaces^{1,2,3}

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Abstract

Introduction: Healthcare providers often experience aggressive behaviors from users and their relatives in Pediatric Emergency Departments (PEDs). This study aimed to investigate the prevalence, type, and risk factors for experiencing workplace violence in Catalan PEDs.

Methods: A multicenter descriptive study was conducted in January 2023. An anonymous electronic survey was designed based on the validated Healthcare-workers' Aggressive Behavior Scale-Users (HABS-U). It was distributed by email to 894 healthcare providers in 20 PEDs of major hospitals in Catalonia (Spain). The following data were collected: sociodemographic variables, exposure to workplace violence within the last year, type and frequency of these behaviors from patients and their relatives, type of support needed by healthcare workers, and additional training requested by them. Gender, age, working time in the PED, and professional category were analyzed as risk factors.

Results: Among those asked, 268 healthcare providers answered the survey (a response rate of 31.4%). Of them, 92.1% claimed to have suffered from workplace violence in the past year; verbal aggression was more frequent than physical. Being a nurse or an administrative employee was a risk factor for suffering violence, compared to being a physician. Support from colleagues and friends was more common than institutional support. Of the respondents, 43.7% of the respondents felt adequately prepared to deal with these behaviors, while 68.3% emphasized the need for additional training.

Conclusion: This study reveals a high prevalence of workplace violence in Catalan PEDs. The most common behavior is verbal aggression from relatives. Physicians suffer less frequently from workplace violence compared to the rest of healthcare staff.

CONDUCTAS HOSTILES DE LOS USUARIOS HACIA EL PERSONAL SANITARIO EN LOS SERVICIOS DE URGENCIAS PEDIÁTRICAS DE CATALUÑA**Resumen**

Introducción: Los profesionales sanitarios son víctimas a menudo de conductas hostiles (CH) por parte de pacientes y cuidadores en los Servicios Pediátricos de Urgencias (SUP). El objetivo de este estudio fue investigar la prevalencia, tipos y factores de riesgo para sufrir este tipo de conductas en los SUP de Cataluña (España).

Métodos: Se realizó un estudio descriptivo multicéntrico en enero 2023. Se diseñó una encuesta electrónica anónima, a partir de la Escala de Conductas Hostiles hacia Profesionales de la Salud-Usuarios (ECOH-U) validada. La encuesta fue distribuida por

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correo electrónico entre 894 profesionales de 20 SUP de hospitales de Cataluña (España). Se recogieron variables demográficas, y datos sobre la exposición a conductas hostiles en el último año, tipo y frecuencia de estas conductas por parte de pacientes y cuidadores, apoyo para los trabajadores y necesidades de formación. Se analizaron como factores de riesgo el sexo, la edad, el tiempo trabajado en el SUP y la categoría profesional.

Resultados: Se recibieron 268 encuestas (tasa respuesta 31,4%). El 92,1% de los sanitarios habían sufrido una CH en el último año. Las CH verbales fueron más frecuentes que las físicas. El personal enfermero y administrativo tuvieron más riesgo de sufrir conductas violentas. El personal recibió el apoyo de amigos (88,4%), y compañeros (95,2%). El 43,7% se sintió correctamente preparado para afrontar estas situaciones, el 68,3% manifestó necesitar más formación.

Conclusión: Este estudio pone de manifiesto una elevada prevalencia de conductas hostiles en los SUP catalanes. La conducta más frecuente fue la agresión verbal por parte de familiares. El personal médico sufre menos violencia respecto a otros colectivos.

INTRODUCTION

Workplace violence against healthcare providers in the pediatric emergency department is considered a growing problem and has become a global public health concern. Suffering violence at work can have significant consequences for the individuals who experience it⁽¹⁻³⁾.

According to the World Health Organization, workplace violence is defined as “incidents involving work-related abuse, threats or assaults among health workers including physical, sexual, verbal and psychological abuse and workplace harassment which explicitly or implicitly endanger their safety, well-being or health”⁽⁴⁾.

These aggressive behaviors can be divided into physical and psychological. Physical violence includes the use of any force which produces physical, material, and/or sexual damage. Psychological violence includes verbal abuse, intimidation, harassment, and threats. Workplace violence can lead to consequences such as anger, fear, depression, anxiety, and sleep disturbance, as well as reduced enthusiasm and efficiency⁽⁵⁻⁷⁾. According to several studies, psychological violence is the most frequent kind of aggressive behavior in healthcare settings^(3,8).

It is difficult to establish the real prevalence of workplace violence, because such behaviors are not well defined and reporting systems are often not appropriate. Nevertheless, workplace violence is frequent in healthcare settings; its prevalence, defined as a worker having experienced some kind of aggression in the last year, ranges between 50% and 80% depending on the study⁽⁹⁻¹¹⁾.

The staff who work in emergency departments are four times more likely to be exposed to workplace violence than other healthcare providers^(12,13). Although violence can affect all healthcare staff, it has been shown that nurses are the most frequently exposed providers^(6,13).

While several studies have been performed in adult Emergency Departments, fewer studies have focused on aggressions against personnel working in Pediatric Emergency Departments (PEDs). Therefore, this study aimed to determine the frequency of violence in Catalan PEDs, to describe the

most frequent aggressive behaviors, and finally, to determine any risk factors for suffering from workplace violence.

MATERIALS AND METHODS

Study design and population

A multicenter observational study was carried out. An electronic survey, based on a validated questionnaire about workplace violence towards healthcare providers, was performed.

Healthcare providers from 20 PEDs in Catalonia (Spain) were asked to voluntarily and anonymously answer the survey. Physicians, nurses, nursing assistants, and administrative staff were included. No kind of compensation was offered for participating in the study.

Survey

To assess violence towards professionals, the researchers used an adapted version of the Healthcare-workers' Aggressive Behavior Scale-Users (HABS-U), translated from English to Spanish^{7,14}. This validated questionnaire was designed to evaluate non-physical and minor physical aggressive behaviors that users directed towards healthcare workers.

In this study, participants were asked to answer to the following questions:

- Personal sociodemographic variables: gender, age, professional category, years working in the PED.
- Whether the respondents had experienced any aggressive behavior in the last 12 months.
- The frequency of exposure to at least one of the 10 aggressive behaviors from the patients.
- The frequency of exposure to at least one of the 10 aggressive behaviors from their relatives.
- The type of support received by the healthcare worker after the aggression (from friends, co-workers, supervisors, department heads, the institution, psychiatric support).
- What kind of training was or would be needed to deal with these situations.

The 10 aggressive behaviors that respondents may be exposed to were:

- Psychological violence (7): being angry about waiting, grimaces, questioning decisions, sarcastic jokes, anger due to lack of information, anger that is not proportionate to the situation, unjustified accusations.
- Minor physical conduct (3): aggressive grabbing, pushing or shaking, material damage.

The frequency of exposure to these violent behaviors was evaluated using a Likert-type scale ranging from 0 to 4: 0 never, 1 rarely (less than twice per year), 2 occasionally (less than three times a month), 3 frequently (three or more times per month), and 4 very often (more than twice per week). A behavior rated with a 3 or 4 was considered a "frequent" behavior.

Study protocol

In November 2022, 894 healthcare providers from 20 Catalan PEDs were asked via email to participate in the study. They were asked to anonymously answer an electronic version of the survey that was located in a secure web application (REDCap®). Two reminder emails were sent: one in December 2022 and one in January 2023.

The study was reviewed and approved by the Research Ethics Committee of the hospital that led the study (PIC 146-22).

Data analysis

Data were extracted from the REDCap® platform and analyzed with the software IBM® SPSS® Statistics for Windows® (version 25). Tests were applied for data distribution (Kolmogorov-Smirnov) and for the comparison of quantitative data (Student's T-test, Mann-Whitney U-test) and qualitative data (Chi-squared test, contingency table, Fisher's exact test). P-values under 0.05 were considered significant.

Gender, age, working time in the PED, and professional category were analyzed as risk factors for experiencing workplace violence in the PED.

RESULTS

Of those emailed, 268 surveys were completed by healthcare workers (a response rate of 31.4%).

Demographic characteristics

Of the respondents, 77.6% were female. The participants' median age was 33 years old (IQR 27-43). The median time worked in the PED was 8 years (IQR 4-16). Respondents were physicians (61.6%), nurses (31.7%), nursing assistants (5.6%), and administrative staff (1.1%).

Frequency and types of violence

Among the respondents, 92.1% of healthcare providers claimed to have experienced workplace violence within the last year. Of these aggressive behaviors, 9.7% had occurred while physically restraining a patient and 10.8% while a procedure was performed.

Table 1 and Table 2 show the frequency of the different types of workplace violence perpetrated by children and by their relatives.

Healthcare workers suffer more psychological violence than physical violence: 19.8% of respondents had suffered psychological violence from patients and 75.7% from relatives, while 4% had suffered from physical violence from patients and 9.3% from relatives.

Support

With regard to the support received, 95.2% of the staff said that they were comforted by colleagues, 88.4% by friends, 58.6% by their direct supervisor, and 24% by the institution after having suffered an aggression. In total, 2.9% of the respondents claimed to have needed professional support from a psychiatrist or a psychologist.

In terms of ability to face workplace violence, 43.7% affirmed they felt capable of dealing with aggressive behaviors and 68.3% felt that they needed more training to handle aggression.

Risk factors

No statistically significant differences were found in the prevalence of workplace violence based on gender, age, or length of tenure in the PED.

Being a healthcare professional other than a physician was found to be a risk factor (55.1% of physicians had suffered workplace violence during the past year vs. 80% of the other groups, $p < 0.001$).

DISCUSSION

The results of this study reveal that workplace violence is very frequent among healthcare workers in Catalan PEDs, as almost three-quarters of the respondents experienced some form of it during the last year. Other studies have found similar results, showing that 50-80% of healthcare providers have been victims of workplace violence within the last year^(3,5,15). Nevertheless, most of these studies focused on adult settings, so our findings bring new and important information about violence against staff in PEDs, which may be even more frequent than in general or adult emergency departments.

As previous studies have pointed out, psychological aggression is the most common type of violence against pediatric staff^(5,16). The main cause of violence is being angry about waiting, in both pediatric and adult settings. Thus, preventive strategies should take this into account. In this sense, trying to make waiting times shorter or improving the patient experience while waiting may diminish the frequency of these behaviors^(6,12,13,15). Other common reasons include dissatisfaction with medical decisions, which could be mitigated through a combination of effective communication, empathy, and transparency, as well as increased health education and shared decision-making^(6,12).

In sharp contrast with the results obtained in other studies, in PEDs, the main aggressors are caregivers⁹. This could be explained by the unique characteristics of the pediatric setting, where patients are always accompanied by caregivers. Relatives often behave as advocates for their children and fight for their well-being. This may lead caregivers to express their concerns or fears in an aggressive way when

TABLE 1. Violent behaviors from users (children), n= 268.

	Never	< 2/year	< 3/month	≥ 3/month	> 2/week
Non-physical violence					
Being angry about waiting	34.7%	34.7%	17.2%	8.2%	5.2%
Grimaces	32.5%	43.3%	10.8%	7.8%	5.6%
Questioning decisions	47.4%	35.1%	8.6%	6.0%	3.0%
Sarcastic jokes	52.2%	33.6%	7.1%	4.5%	2.6%
Anger due to lack of information	60.4%	24.6%	7.8%	4.1%	3.0%
Anger not proportionate to the situation	44.8%	26.5%	18.3%	6.3%	4.1%
Unjustified accusations	62.3%	26.1%	6.3%	2.6%	2.6%
Physical violence					
Aggressive grabbing	73.9%	18.7%	3.0%	2.6%	1.9%
Pushing or shaking	79.1%	16.0%	3.4%	0.7%	0.7%
Material damage	79.9%	17.2%	2.6%	0.4%	0.0%

TABLE 2. Violent behaviors from relatives, n= 268.

	Never	< 2/year	< 3/month	≥ 3/month	> 2/week
Non-physical violence					
Being angry about waiting	0.7%	5.6%	21.3%	41.0%	31.3%
Grimaces	1.9%	19.4%	33.2%	26.5%	19.0%
Questioning decisions	1.5%	20.5%	33.6%	34.0%	10.4%
Sarcastic jokes	13.8%	38.8%	29.1%	11.6%	6.7%
Anger due to lack of information	13.8%	35.8%	26.1%	17.5%	6.7%
Anger not proportionate to the situation	8.6%	38.1%	29.9%	15.3%	8.2%
Unjustified accusations	16.8%	39.9%	27.6%	10.4%	5.2%
Physical violence					
Aggressive grabbing	61.2%	23.9%	7.1%	4.1%	3.7%
Pushing or shaking	86.9%	11.2%	1.1%	0.4%	0.4%
Material damage	74.6%	23.5%	1.9%	0.0%	0.0%

they perceive a lack of attention or an excessive waiting time. This particularity of the pediatric setting must be taken into consideration when designing improvement strategies.

Our results suggest that physicians are less commonly assaulted by patients or caregivers in comparison to other groups, as previous studies have found^(6,10,12). These differences between professional categories could be explained by the fact that nurses spend more time with patients and caregivers and, consequently, are more exposed. Another explanation could be that the risk may not be related to the professional category itself, but to being the first staff that patients encounter when they enter the emergency department. In this case, administrative staff and nurses are the first ones to deal with them and are consequently the providers at a higher risk^(7,12).

In our study, differences in the risk of suffering from workplace violence were not found to be dependent on age or the number of years worked in the PED^(8,10). However, other studies have shown that the younger the staff, the higher

the risk of experiencing aggressive behavior, probably due to their lack of skill in managing violent situations^(9,13,15). Our sample is younger than the samples of these studies, and this fact may explain why we did not find age or years worked in the PED as risk factors. Health institutions should, on the one hand, take measures to protect their workers (such as deterrent measures against violent behaviors), and on the other hand, teach their younger staff how to prevent and manage psychological or physical violence⁽¹⁶⁾.

More than 50% of the respondents in our sample asked for more training programs on handling aggression; this result is similar to previous studies^(1,2). Interventions and training focused on preventing and managing violence are not simple, as there is no single strategy that applies to all settings and all circumstances⁽¹⁷⁾. Despite that, staff training on managing angry patients and caregivers would definitely diminish the frequency of these behaviors and have a direct impact on the patient experience and the healthcare providers' well-being.

LIMITATIONS

This study presents a few limitations worth mentioning. These surveys were exclusively distributed in major hospitals in Catalonia. While this approach allowed for the examination of workplace violence within well-established healthcare institutions, it inherently restricts the generalizability of our findings to a broader healthcare context such as smaller healthcare facilities, community clinics, or rural hospitals. Furthermore, the retrospective nature of our survey and reliance on self-reported surveys is another limitation, as these types of studies are inherently susceptible to recall bias. Lastly, we must also be cautious when interpreting our results, as there is a possibility of selection bias. This is due to the fact that those individuals experiencing workplace violence may be more willing to answer a survey on this topic.

CONCLUSION

In conclusion, our study highlights a high prevalence of workplace violence within Catalan PEDs. Psychological violence is more frequent than physical violence, so further interventions should be focused on improving communication and de-escalation skills among healthcare providers. These training programs and support systems should be geared towards all healthcare professionals, but with an emphasis on those who are more frequently exposed, such as nurses.

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