

## Profile of Children With Child Abuse From Serbia

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Received: March 26, 2022;  
Initial review: March 27, 2022;  
Accepted: July 15, 2022.

**Objective:** To study the demographic and clinical profile of children with suspected physical or sexual abuse. **Methods:** Retrospective records of children who were admitted to hospital between January, 2015 to December, 2020 with suspected physical or sexual abuse were evaluated. **Results:** The records of 52 children [mean (SD) age 12.24 (5.32) y, 39 boys] were retrieved. Contusions were the most common injury in 53.8% of boys and 69.2% of girls. The majority (70%) of 8-18 year-old-children were abused by peers, and parents/caregivers were the main perpetrators in 72.7% of younger children. **Conclusion:** Child abuse is often underreported, and requires a high index of suspicion and multidisciplinary approach of management.

**Keywords:** Abuse, Brain injury, Contrusions, Sexual abuse, Abuse.

Children in Balkan countries are exposed more to violence than in European countries as rates for physical violence range from 50.7-76.4% for lifetime experience [1]. Sexual violence exposure ranged from one in twelve to one in six children for lifetime exposure with higher rate in boys than girls in Serbia [1]. The aim of this study was to study the demographic profile of child abuse and to identify the common types of injuries and indications for hospitalization.

### METHODS

The records of children hospitalized between January 1, 2015 to December 31, 2020, at the Clinic for Pediatric Surgery, University Clinical Center Nis with suspected physical or sexual abuse were evaluated. Abuse was suspected based on clinical findings, inconsistency in the history given by the child and the accompanying adult, and in the provided explanation of injury. Medical documents and data referring to age, gender, place of origin, type of abuse, perpetrators, injury type, injury severity, duration of hospitalization, and outcomes were collected and analyzed. Contusions of the head and body, multiple excoriations and simple cuts were classified as minor injuries; fractures, tendon sections, stab wounds, and parenchymal organ injuries were classified as major injuries. The study did not include outpatient cases and patients with self-inflicted injuries. In all cases, a social worker was actively involved, according to the state protocol, in managing children suspected of being abused or neglected. The study was conducted in line with in-

country legislation after taking parental consent. It was approved by the Institutional Ethics Committee.

**Statistical analysis:** Anonymized data were entered in Microsoft Excel (Microsoft Corporation). Numerical values were analyzed by Kruskal-Wallis test and categorical variables by chi-square test. All tests were used with a statistical significance of  $P < 0.05$ . Analyses were performed using R software, Version 3.0.3 (R Foundation for Statistical Computing) [2].

### RESULTS

A total of 52 children (39 boys) with mean (SD) age 12.24 (5.32) years with suspected abuse were hospitalized, majority (73.1%) of these beyond the urban area. The demographic and clinical profile of children is shown in **Table I**. The average hospitalisation rate was 8.6 children per year with similar annual trends across the study period ( $P = 0.79$ ). The average (range) duration of hospitalization was 4.7 (1-23) days. There were no lethal outcomes in any child with physical or sexual abuse.

In children younger than 7 years ( $n = 11$ ), the perpetrators were predominantly parents/caregivers (72.7%), while children aged 8-18 years ( $n = 41$ ) were mostly abused by their peers (70.0%). The injuries reported in majority (62.5%) cases of peer-violence were minor. Unknown perpetrators were noted in 1 and 8 children in 0-7 and 8-18 year age group, respectively. Sexual abuse was suspected in two (both 4-year-old) and one 12-year-old girl, two of these three children had evidence of external injury.

### WHAT THIS STUDY ADDS?

- Majority of injuries in children hospitalized with suspected abuse, in this regions, were minor, and recovered with conservative management.

**Table I Characteristics of Children With Child Abuse Enrolled in the Study (N=52)**

Characteristics	Boys	Girls
<i>Age<sup>a</sup></i>		
0-3 y	12.19 (5.30)	12.40 (5.61)
4-12 y	5 (12.8)	2 (15.4)
12-18 y	7 (18)	1 (7.7)
Minor injuries	27 (69.2)	10 (76.9)
Major injuries	23 (59)	9 (69.2)
16(41)		4 (30.8)
<i>Type of injuries</i>		
Burns	2 (5.1)	0
Upper extremity fractures	2 (5.1)	0
Lower extremity fractures	2 (5.1)	3 (23.1)
Semi-amputations of fingers	1 (2.6)	0
Head injury	4 (10.3)	0
Tendon sections	0	1 (7.7)
Contusions	21 (53.8)	9 (69.2)
Stub wounds	8 (20.5)	0
Cuts/simple wounds	10 (25.6)	2 (15.4)
Thorax injuries	7 (17.9)	0
Abdominal injuries	1 (2.6)	1 (7.7)
Pelvis and genital injuries	2 (5.1)	1 (7.7)
Multiple injuries	16 (41)	6 (46.2)
<i>Type of management</i>		
Surgical	16 (42.1)	3 (23.1)
Conservative	22 (57.9)	10 (76.9)
Sequelae	4 (10.5)	2 (16.7)

Values in no. (%) or <sup>a</sup>mean (SD). All  $P > 0.05$ .

## DISCUSSION

This study provides the demographic and clinical data of childhood abuse in different age and gender groups in Serbia.

In this study, boys were identified as more susceptible for physical and sexual abuse than girls. Minor trauma like head and body contusions was the predominant injury in both genders without any deaths; although, mortality rates as high as 15.8% have been reported [3]. Peer violence was common in school children aged 8 to 18 years, similar to an earlier study [4], that reported peer violence in 48-80% of school children. Parents, and parents and teachers were identified as perpetrators in an interview-based study in adolescents and young adults aged 13 to 24, respectively [5].

In Serbia, 69.2% children aged 11-16 years had experienced physical violence, 8.5% sexual violence, and 4.9% reported contact sexual violence [1]. The proportions were different in the present study as patients with a wider age-range were included. Almost 10% of children experience violence by more than one perpetrator, similar to our study [6]. In majority of the cases, victims knew the perpetrator(s), as has also been reported earlier [7]. Almost one-third of physically abused children require orthopedic treatment [3]. A significant proportion required surgical management in this study too.

Usually, physical findings in sexual abuse as trauma of the genital region heal rapidly, and it is present in less than 10% of abused girls, and rarely seen in boys [8,9]. Children with sexual abuse in this study had external injury as perhaps the study had enrolled hospitalized patients only.

Although reporting child abuse is mandatory, it is estimated that only one out of three child abuse cases is reported [10,11]. Maltreatment of children takes many forms, and it is necessary to increase awareness of child abuse for improved child health outcomes.

*Ethics clearance:* Ethics committee of University Clinical Centre Nis ; No. 14396/211, dated May 26, 2022.

*Contributors:* Both authors were involved in all aspects of the study and manuscript preparation, and have approved the final version for publication.

*Funding:* None; *Competing interests:* None stated.

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