

Injury patterns on child violence cases: analysis of Klaten Soeradji Tirtonegoro Hospital Emergency data

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Abstract

Purpose: This study aims to determine the pattern of injury in cases of physical and sexual violence against children at RSUP Dr. Soeradji Tirtonegoro Klaten in 2017-2019, including what types of injuries often occur, age distribution, gender, and location of the injury. **Methods:** This study uses a descriptive research type with a cross-sectional research design. Data were taken using medical records belonging to Dr. Soeradji Tirtonegoro Klaten General Hospital from 2017-2019 and were conducted from May to July 2021. **Results:** From a total of 63 research subjects, it was found that the most violence experienced by children in the form of sexual violence was 73%. The types of physical violence injuries obtained were 6% cuts, 45.5% abrasions, and 48.5% bruises. The highest age distribution was between 10-14 and 15-17 years, each with 25 cases (39.7%). Women are the most common gender in 95% of cases. The location of most physical violence injuries was in the thorax and extremities 27.3. The location of sexual violence comes from the hymen as much as 60%. **Conclusion:** The most common types of injuries in cases of violence against children in the Emergency Room RSUP Dr. Soeradji Tirtonegoro in 2017 – 2019 was injured due to sexual violence—physical violence. Most types of injury come from hematomas or bruises. The highest ages were found at 10-14 years and 15-17 years. Most of the sex is experienced by girls. The most common sites of injury are injuries to the thorax and extremities. Meanwhile, the head, abdomen, and pelvis regions are followed for the other sequences. The location of sexual violence often occurs in the hymen.

Keywords: abuse; children; pattern; violence

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INTRODUCTION

Cases of violence against children are in relatively high numbers both in the world and in Indonesia. According to data from *the World Health Organization*, it is said that 3 out of 4 children in a population of 300 million children experience physical and psychological punishment from both parents and caregivers. It was also reported that 1 in 5 women and 1 in 13 men aged 0-17 years have experienced sexual violence. Based on data from the Indonesian Child Protection Commission in 2016, 332 cases of children were victims of physical violence and sexual violence [1]. According to the data, of the 332 cases, 120 cases were cases of sexual violence, 84 cases of physical violence, 81 cases of child violence that occurred in schools, and 37 cases of psychological violence. For the Central Java region itself, it recorded the number of violence based on the type of violence experienced by children aged 0-18 years. In 2019, there were 292 cases of physical violence and 700 cases of sexual violence, the most violence experienced by children. There was no significant decrease in violence cases from 2017 to 2019; the number remained around the same yearly [2].

According to *the World Health Organization*, *violence against children* is an improper act, whether physical, emotional, sexual, neglect, or exploitation, that has the potential to endanger the health, survival, and development of children in the context of relationships of responsibility and power [1]. In Indonesia, violence against children, as stated in Law of the Republic of Indonesia Number 35 of 2014, is any act against a child that results in physical, psychological, sexual, and/or neglectful misery or suffering, including threats to commit acts, coercion, or unlawful deprivation of liberty. Children referred to in Indonesian law are children under the age of 18, including children who are still in the womb. Most of the violence that occurs occurs in the family environment in terms of educating children. The types of violence that occur in terms of education are physical violence as much as 10.16%, psychological violence as 21.48%, and both as much as 23.17%. One of the underlying factors is the head of the family with a low educational background who still uses violence in educating children [3].

Violence against children itself hurts the health and welfare of children both physically, such as damage to the nervous system and brain development, sexually, hostile behavior, and can result in death. In preventing cases of violence against children, various efforts are made in prevention and handling [1]. *The World Health*

Organization has made prevention and handling steps with 10 international agencies based on evidence called *INSPIRE: Seven strategies for ending violence against children*. The Klaten Regency government has created a social institution related to social problems that occur to children and families, named the Integrated Child Social Welfare Service Center (PLSKAI). This institution is regulated in Regent Regulation number 23 of 2016, which provides child social welfare services and is under the auspices of the regional apparatus that handles children's social problems. PLSKAI itself is a team consisting of civil servants appointed by the regent. It is a non-governmental organization focusing on child protection, academics, social workers, and professional organizations. The establishment of this institution should be able to reduce the number of cases of violence against children in Klaten Regency to fewer.

From the data described above, the question arises: what are the patterns of violence against children that often occur both from the type of injury, age distribution, gender, and where the location of the most frequent injuries is obtained from these cases of violence? For this reason, this study is essential to be carried out to find out what the actual pattern of injuries that often occur from cases of violence against children is.

METHODS

This study uses a descriptive research type with a cross-sectional research design. Data were taken using medical records belonging to Dr. Soeradji Tirtonegoro Klaten General Hospital from 2017-2019 and were conducted from May to July 2021. The population of this study was the medical records of victims of violence against children in the Emergency Room of Dr. Soeradji Tirtonegoro General Hospital from January 1, 2017, to December 31, 2019. The population will be represented by samples taken by *purposive sampling* by meeting the inclusion criteria and exclusion criteria. The sample inclusion criteria are medical records of patients with violence against children recorded in the Emergency Room of Dr. Soeradji Tirtonegoro General Hospital from January 1, 2017, to December 31, 2019. The sample exclusion criteria are patient medical records that do not contain the results of a physical examination by a doctor.

The research data collection will be carried out using a research questionnaire that the researcher will fill out; the research questionnaire information needed is the patient's identity consisting of the child's gender, age, type of examination, type of violence received, and injury patterns found in child abuse patients. The

existing data will be cleaned according to the inclusion and exclusion criteria using *purposive sampling*. The data obtained will be checked for completeness from the variables that have been set. Then, elimination is done according to the inclusion and exclusion criteria; the data will be classified and entered into a table. The data will be calculated frequently and analyzed descriptively, presented as narratives, tables, and graphs of the variables studied. Data analysis, table creation, and graphs will use *Microsoft Excel 2019 software*.

RESULTS

Data from the medical records of the Emergency Room of Dr. Soeradji Tirtonegoro Hospital, Klaten, for the period 2017-2019 showed that there were 65 children as victims of violence, both physical and sexual. For samples that met the inclusion criteria, there were 63 children. The youngest age in this study was 3 years old, and the highest age was 17 years old. Where the age most often receiving violence against children reported in the Emergency Room was in the age range of 10-14 years and 15-17 years, each with 25 (39.7%) victims (Table 1).

Table 1. Distribution of child violence variables (n=63)

Variables	n	%
Age classification (years)		
0-4	3	4.8
5-9	10	15.9
10-14	25	39.7
15-17	25	39.7
Gender		
Man	5	8
Woman	58	92
Types of violence		
Physical violence	5	8
Sexual violence	46	73
Both are experienced	12	19

Table 2 shows that the most common location of sexual violence is the hymen (60%). The most frequent type of sexual violence perpetrated against victims involves penetration (24.1%), followed by genital contact combined with penetration (20.7%). In cases of sexual violence involving female children, examinations of the anogenital area and signs of pregnancy were conducted. The results indicate that 16% of the children were pregnant, while 68% were not. The presence of semen or sperm fluid on the victim's genitalia was identified in 2 cases (4%), whereas the majority of data (84%) lacked information on whether such an examination was performed.

Table 2. Patterns of injuries due to sexual violence

Variables	n	%
Location of sexual violence wounds		
Hymen	35	60
Hymen and vagina	6	10
Vagina	3	5
Labia Majora	1	2
No Wounds	1	2
No Information	12	21
Types of sexual violence		
Physical contact	2	3.4
Physical and genital contact	7	12.1
Physical contact, genitals, and penetration	7	12.1
Genital contact	11	19
Genital contact and penetration	12	20.7
Penetration	14	24.1
Penetration and physical contact	1	1.7
No information	4	6.9
Pregnancy checkup		
Pregnant	9	16
Not pregnant	39	68
No information	9	16
Semen and sperm fluid		
Found	2	4
Not found	5	9
Not checked	3	5
No information	48	84

Table 3. Patterns of physical injuries found on children's bodies

Variables	n	%
Types of physical violence		
Mechanical hardness	31	94
Blunt	0	0
Sharp mechanical violence	2	6
Types of injuries		
Iris wound (<i>vulnus scissum</i>)	2	6
Abrasions (<i>vulnus excoriatum</i>)	15	45.5
Bruise (<i>hematoma</i>)	16	48.5
Physical injury region		
Thorax	9	27.3
Extremities	9	27.3
Head	7	21.2
Neck	4	12.1
Pelvis	1	3
Abdomen	1	3
No Information	2	6.1
Location of physical violence wounds		
Head	3	9
Mouth	1	3
Ear	3	9
Neck	4	12
Shoulder	1	3
Chest	8	24
Back	2	6
Hand	4	12
Arm	1	3
Knee	2	6
Instep	1	3
Anus	1	3
No information	2	6

Data in Table 3 reveal that the most common form of physical violence experienced by victims is blunt force trauma (94%). Among the types of bodily injuries

identified in children, 6% were incised wounds (*vulnus scissum*), 45.5% were abrasions (*vulnus excoriatum*), and the most frequent (48.5%) were bruises (*hematoma*). Regarding the regions of injury, the thorax and extremities were the most commonly affected areas, each accounting for 27.3% of cases. Furthermore, the distribution of physical injury locations was diverse, with the chest being the most frequently affected area (24%).

DISCUSSION

In this study, the age of children most often receiving violence is in the age range of 10-14 and 15-17 years. There is a study stating that the age most experiencing violence against children in Manado is at the age of 16 years [4]. Other studies have different results from this study, which found that the most victims of violence against children in Saudi Arabia were children aged ≤ 5 years [5]. The reason why children aged 11-18 years are more vulnerable to violence is because, at this age, children have begun to grow up and are easily influenced by the environment, so they often do not listen to what their parents say. So, parents usually punish the child and unknowingly cause violence to the child.

For the gender of children who are victims of violence against children in the Emergency Room of Dr. Soeradji Tirtonegoro Hospital, the most experienced are women, as many as 92% of cases. This study is in line with data released by the Ministry of Women's Empowerment and Child Protection of the Republic of Indonesia regarding data on violence in Central Java province, which, from 2017 to 2019, girls were the most victims of violence compared to boys. Other studies also report that the gender of children who most often receive violence in the city of Manado is women (51%) [4]. Different findings were obtained in Saudi Arabia, which reported that 55.5% of victims of violence against children were men [5].

The reason why girls often become victims of violence is because women are considered weaker than men. Women are also created with beautiful faces and body shapes, making many women victims of violence [6]. Gender differences in violence against children have different impacts between men and women. For men, they experience external disturbances such as alcohol abuse, while women are more affected by internal disorders such as depression and anxiety [7].

For the origin of the victims of violence, the most reported came from Klaten Regency with 59 cases (93.7%), followed by 1 case each (1.67%) from various regions such as Boyolali, Sleman, Gunung Kidul, and Surakarta. The results show that most patients reside in

Klaten because Dr. Soeradji Tirtonegoro General Hospital is a central general hospital located on Jalan KRT. Suraji Tirtonegoro Klaten, this hospital is a type A hospital and a referral hospital for Klaten Regency.

Types of violence against children

The results of the study conducted at the Emergency Room of Dr. Soeradji Tirtonegoro Hospital, Klaten, for the period 2017-2019 showed an increase in cases of violence, both physical and sexual, against children every year. In 2017, there were 18 cases, which increased to 22 cases in 2018; in 2019, it became 23 cases, with an average of 21 cases per year. The data released by the Indonesian Child Protection Commission for cases of violence against children in Indonesia, primarily physical and sexual violence, decreased from 280 cases in 2017 to 268 cases in 2018 and increased in 2019 to 304 cases. This study is in line with data released by the Ministry of Women's Empowerment and Child Protection, where victims of violence against children in Central Java from 940 cases in 2017 increased to 1052 cases in 2018 and 992 cases in 2019.

Factors that influence the increase in cases of violence against children in Central Java are low levels of economy, society, culture, lifestyle, and education. According to data from the 2015 Central Java Provincial Development Analysis Series, the Central Java economy has stagnated yearly with a slow decline in poverty rates, especially in the Klaten area, with economic growth below the provincial average [8]. In Indonesia itself, according to the Data and Information Center of the Ministry of Health of the Republic of Indonesia on Violence against Children and Adolescents, the risk factors for the level of education that commits acts of violence against children are highest at the level of education that does not have an elementary school diploma, followed by elementary school/equivalent as the second highest.

In this study, the type of violence against children found that the most violence was sexual violence, as much as 73% of cases, with the second order of violence received being both sexual and physical violence, and cases of physical violence as much as 8% of cases. In other studies that are not in line with this study, where the most violence reported was abuse, as much as 66% of cases and sexual violence, 34% [4]. Another study in Saudi Arabia also stated that the most violence against children was physical violence, as much as 42% of cases, followed by neglect 39%, sexual violence 14%, and psychological violence, as much as 4% [5].

This study found that boys mostly received the results for physical violence in 80% of cases and girls in

20% of cases. The most reported victims of sexual violence were women in 45 (98%) cases, and women entirely received the second case of violence (physical and sexual violence) physical violence; the study reported that boys mainly experienced physical violence against children compared to girls [9,10]. This study also stated that the initial occurrence of this violence was as a form of punishment or discipline for children, which then caused various injuries [9]. Other studies also agree with this study that sexual violence was received mainly by girls, as much as 95% [11].

The reason why women are more at risk of sexual violence and men more physical violence is the patriarchal culture in developing countries. In addition, girls are more attractive and less open to something than boys. In addition, sexual violence against girls results in a worse stigma for the family, so it is rarely reported [5].

Patterns of wounds or violent injuries found on children's bodies

This study obtained two types of physical violence against children received at the Emergency Room of Dr. Soeradji Tirtonegoro Hospital, Klaten, namely blunt and sharp violence. Blunt violence is physical violence that is often experienced by victims as much as 94%.

It was also reported from other studies that the type of physical violence received by children is from blunt force trauma [12,13]. The reason why blunt force trauma often occurs in children is because the perpetrator's intention to commit violence is to punish, not to cause serious injury [13].

The types of physical violence injuries obtained are cuts (*vulnus scissum*), abrasions (*vulnus excoriatum*), and bruises (*hematoma*). The most common type of physical violence injury obtained comes from bruises/hematomas, as much as 48.5%. Two studies are in line with this study, where the most common type of physical violence injury comes from bruises [4,9]. This study also states that in Haiti, physical violence is common and causes serious injuries.

Bruises are the most common injury from physical violence received by children, where bruises are easily visible [14]. In addition, the pattern of bruises that indicates violence against children is bruises that generally occur on the head and have bruises that are in groups. Based on the region of injury received by victims of physical violence in this study, the most came from the *thorax* and extremities of as many as nine subjects, with a percentage of 27.3%. The *thorax* is the most common place in violence against children [14]. Chest injuries often occur due to beatings, which can cause lung injuries such as *pneumothorax*,

pneumomediastinum, and pulmonary edema with head trauma.

Other research differs from this research, stating that the region of physical violence injury against children is mainly on the head, with 65% of cases. The location of most cases of physical violence is in the head area, with 237 cases seen from 2 points of view, followed by the back and arms as the second most injured location after the head, each with 3% [4]. The reason why physical violence occurs on a child's body is because it is a place that is accessible to the perpetrator, which does not cause fatal injuries [13]. For victims of head trauma, there is a level of neurological disability that can cause visual and hearing impairment, *epilepsy*, *cerebral palsy*, and experience delays in development and cognition. In addition, children who are victims of physical violence are affected by biological adaptation related to brain response, *neuroendocrine stress response*, and immune system function [14].

In cases of sexual violence, there were 45 cases of female gender, 1 case of male, and the second case of physical and sexual violence with 12 cases of female gender, for types of wounds such as abrasions, tears, bruises, and lacerations on the anogenital are not listed in the medical records. In research conducted in Sivas, in line with this research, the most common type of sexual violence experienced by victims was vaginal penetration, with a percentage of 34.5%, followed by physical and genital contact at 18.1% [15].

Research conducted in the city of Semarang is in line with this study, where the location of sexual violence cases in Semarang is mostly torn hymen [13]. Other studies also state that *hymen* is the most common location, with 42.19% of cases [16]. Healing of wounds in the hymen area can occur 3 weeks in pre-puberty and 4 weeks in puberty, and wounds in the labium or vagina can heal faster. Because of the long time between the incident of violence and the reporting of violence, the examination of *the hymen* is not a gold examination in determining the incident of sexual violence, so the absolute examination that must be carried out by medical personnel is a comprehensive examination [16].

There is a study that reports the hymen is the most common location of injury in sexual violence against children. In addition, this study also conveys that around 16% of girls who experience sexual violence experience pregnancy in line with this study [4]. This author also suggests the use of emergency contraception such as progestin pills, estrogen pills, mifepristone, and danazol because of the high incidence of pregnancy [4]. The impact of sexual violence on children themselves, such as experiencing

depression, post-traumatic stress disorder, anxiety, and can affect becoming victims of violence in adulthood [4].

For the age range, there is a study that states that sexual violence was obtained in 8 cases of men and 47 cases of women who have an age range of 5-17 years [15]. As for cases of sexual violence that were examined anogenitally in this study, it was found that there were 12 (21.8%) cases of old tears, 3 cases of acute sexual violence, and anal wounds in two cases in men. In addition, in the sperm examination carried out on the anus and genitals, two cases were detected, and for pregnancy examinations it was also carried out with confirmation that the victim was pregnant in 1.18% of cases. The reason for the sexual violence that occurred in this study was due to early marriage, low levels of education, and social characteristics, which had an impact on psychological problems in children both in the long and short term.

In addition, children who are vulnerable to sexual violence come from groups of children whose parents are divorced, live with stepfamilies or guardians, from families who commit violence, are physically disabled, street children, and children who come from economically disadvantaged families. Perpetrators make children objects of sexual violence because they are considered weaker physically, psychologically, and economically than the perpetrators, so children as victims have difficulty or cannot fight back when the perpetrators commit crimes [17].

CONCLUSION

The most common type of injury in cases of violence against children in the Emergency Room of Dr. Soeradji Tirtonegoro Hospital in 2017-2019 was injuries due to sexual violence. The second most common type of injury was injuries due to a combination of sexual violence and physical violence. In contrast, the number of injuries due to physical violence was the lowest number of cases. The most common type of physical violence injury came from hematoma or bruises.

Research on cases of violence against children in the Emergency Room of Dr. Soeradji Tirtonegoro Hospital in 2017-2019 found that the ages of the most victims were 10-14 years and 15-17 years. Girls experienced the most common gender. The most common location of injury was injury to the thorax and extremities. Meanwhile, the other sequences were followed by the head, abdomen, and pelvis. The location of sexual violence often occurs in the hymen, where the second sequence is in the vagina and hymen.

REFERENCES

1. World Health Organization. Violence against children. 2020. Available from: <https://www.who.int/news-room/fact-sheets/detail/violence-against-children>
2. Badan Pusat Statistik Provinsi Jawa Tengah. Jumlah kekerasan berdasarkan jenis kekerasan yang dialami oleh anak usia 0-18 tahun. 2019. Available from: <https://jateng.bps.go.id/statictable/2020/07/21/1913/jumlah-kekerasan-berdasarkan-jenis-kekerasan-yang-dialami-oleh-anak-usia-0-18-tahun-korban-kekerasan-di-provinsi-jawa-tengah-2019-.html>
3. Komisi Perlindungan Anak Indonesia. Rincian data kasus berdasarkan kluster perlindungan anak 2011-2026. 2020. Available from: <https://bankdata.kpai.go.id/4ff34619-f74c-4559-9026-e5359dbdec22>
4. Janise, C.L., Kristanto, E.G., Siwu J.F. R. Pola cedera kasus kekerasan fisik pada anak di RS Bhayangkara Manado periode tahun 2013. 2015;7(1). doi: doi.org/10.35790/jbm.7.1.2015.7290
5. Almuneef MA, Alghamdi LA, Saleheen HN. Family profile of victims of child abuse and neglect in the Kingdom of Saudi Arabia. *Saudi Medical Journal*. 2016;37(8):882-8. doi: doi.org/10.15537/smj.2016.8.14654
6. Diah Purbararas. Problema traumatik: kekerasan seksual pada remaja. 2018;2(1). doi: dx.doi.org/10.21043/ji.v2i1.4289
7. Meng X, D'Arcy C. Gender moderates the relationship between childhood abuse and internalizing and substance use disorders later in life: a cross-sectional analysis. *BMC Psychiatry*. 2016;16(1). doi: doi.org/10.1186/s12888-016-1071-7
8. Central Java Province Regional Development Analysis Series 2015. [cited 2021 Dec 27]. Available from: https://simreg.bappenas.go.id/assets/temaalus/document/Publikasi/DokPub/03.%20Analisis%20Provinsi%20Jawa%20Tengah%202015_ok.pdf
9. Flynn-O'Brien KT, Rivara FP, Weiss NS, Lea VA, Marcelin LH, Vertefeuille J, et al. Prevalence of physical violence against children in Haiti: A national population-based cross-sectional survey. *Child Abuse and Neglect*. 2016;51:154-62. doi: doi.org/10.1016/j.chiabu.2015.10.021
10. Simon TR, Shattuck A, Kacha-Ochana A, David-Ferdon CF, Hamby S, Henly M, et al. Injuries from physical abuse: national survey of children's exposure to violence I-III. *American Journal of Preventive Medicine*. 2018;54(1):129-32. doi: doi.org/10.1016/j.amepre.2017.08.031

11. Indrayana MT. Profil kasus kekerasan seksual terhadap perempuan dan anak yang diperiksa di Rumah Sakit Bhayangkara Dumai (2009-2013). *Jurnal Kesehatan Melayu*. 2017;1(1):9. doi: [dx.doi.org/10.26891/jkm.v1i1.2017.9-13](https://doi.org/10.26891/jkm.v1i1.2017.9-13)
12. Lumente MA, Kristanto EG, Siwu JF. Keragaman kasus forensik klinik di RS Bhayangkara Tingkat III Manado dari sudut pandang SKDI 2012 periode Juli 2015-Juni 2016. *Jurnal e-Clinic*. 2012;5(1). doi: doi.org/10.35790/ecl.v5i1.14780
13. Iswara RAFW, Relawati R, Rohmah IN. Pola perlukaan kekerasan terhadap anak dan perempuan. *Medica Hospitalia*. 2017;4(3):191-4. doi: doi.org/10.36408/mhjcm.v4i3.336
14. Christian CW, Crawford-Jakubiak JE, Flaherty EG, Leventhal JM, Lukefahr JL, Sege RD. The evaluation of suspected child physical abuse. *Pediatrics*. 2015;135(5):e1337-54. doi: doi.org/10.1542/peds.2015-0356
15. Butun C, Yildirim A, Ozer E, Yilmaz E, Sari SA. A nonrandom sample of 55 sexual abuse cases in Sivas. *Medical Science Monitor*. 2017;23:4360-5. doi: doi.org/10.12659/msm.905591
16. Kartika M, Medicine and Health J, Aida Fathya N, Noer Rochmah E, Fauzan Zain F, General Achmad Yani U, et al. Sexual violence against children: evidence by medical professional. *Medika Kartika*. 2020.
17. Rohmah N, Rifanda N, Novitasari K, Humaira D, Diena U, Nuqul FL. Sexual Violence against Children: A Study of the Relationship between Perpetrators, Victims and Vulnerabilities in Children. 2015.

