

Original Article

Evaluation of disability reports requested by judicial authorities for individuals under 18 years of age from the department of forensic medicine between 2023–2025**İD Mesut Yılmaz, İD Erkal Gumusboga, İD Abdulkерim Yayla, İD Ramazan Ozalp, İD Berkay Tertemiz***İnönü University, Department of Forensic Medicine, Faculty of Medicine, Malatya, Türkiye*

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**Abstract****Aim:** This study aimed to retrospectively evaluate disability reports prepared for individuals aged 0–18 years due to injury-related disability in terms of trauma origin, demographic characteristics of individuals, injury sites, and the presence of special needs.**Material and Methods:** In this retrospective study, 47 cases under the age of 18 for whom disability reports were requested by courts from the Department of Forensic Medicine, İnönü University between 2023–2025 were evaluated in accordance with judicial requests. Evaluation parameters were determined as age, gender, nationality, season, injury sites, bone fracture, requested regulation, and injury origin. The obtained data were analyzed using IBM SPSS Statistics 22.**Results:** Of the cases evaluated in accordance with disability regulations, 33 were male (70.2%) and 14 were female (29.8%). The mean age of the cases was calculated as 11.7. It was observed that traffic accidents constituted the largest proportion of injuries, and in 42 of 47 cases (89.4%), disability occurred due to traffic accidents. Bone fractures were observed in 40 of the cases (85.1%). It was observed that 16 of the 47 cases (34%) occurred in the summer season.**Conclusion:** The determination of traffic accidents as the most common cause of disability highlights the importance of traffic safety in our country. It is of our opinion that taking appropriate measures to minimize injuries, ensuring effective deterrence, full compliance with occupational safety measures and traffic rules, and awareness trainings will minimize these adverse outcomes and prevent anatomical and functional losses that individuals may experience.**Keywords:** Forensic Medicine, disability assessment, injury**INTRODUCTION**

Childhood is the stage of life in which physical, psychological, and cognitive development progresses most rapidly. Trauma occurring during this period may lead not only to acute medical problems but also to serious health problems that may result in permanent physical or psychosocial effects. According to TurkStat data, children constituted 25.5% of the population of Türkiye in 2024 [1].

According to Türkiye Traffic Road Accident Statistics (2014), 11.1% of deaths (391 children) and 18.2% of injuries (51,850 children) were in the 0–17 age group. Approximately 0.2% of children aged 0–19 in Türkiye in 2014 were injured due to traffic accidents. In a study reflecting national data in Türkiye, it

was found that 0.7% of children aged 7–14 were injured due to traffic-related causes [2].

The World Health Organization (WHO) defines disability as “any restriction or lack of ability to perform an activity in the manner or within the range considered normal for a human being” [3]. According to the WHO 2008 report, each year 950,000 children die due to injuries, and 10–30 million children are forced to live with permanent disability. This corresponds to more than 100 preventable child deaths every hour. It has been observed that unintentional injuries, including traffic accidents, burns, falls, drowning, and poisoning, constitute nearly 90% of these cases, and traffic accidents alone are the leading cause of death among individuals aged 15–19 and the second leading cause of death

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among children aged 5–14 [4]. Data from the US Centers for Disease Control and Prevention (CDC) also show that childhood injuries hold an important place among preventable causes of death and disability [5].

In this study, it was aimed to retrospectively evaluate disability reports issued for individuals aged 0–18 years due to injury in terms of trauma origin, demographic characteristics, injury sites, and the presence of special needs.

MATERIAL AND METHODS

For this study, approval was obtained from the Scientific Research and Publication Ethics Committee of İnönü University Health Sciences Scientific Research Ethics Committee (Session Date: 14-10-2025, Session Number: 13, Decision Number: 2025/8329).

In our study, 47 cases under the age of 18 for whom disability reports were requested by courts from the Department of Forensic Medicine, İnönü University between 2023–2025 were retrospectively examined.

In this study, the evaluation was carried out in accordance with the “Regulation on the Assessment of Special Needs for Children” published in the Official Gazette dated 20 February 2019 and numbered 30692, the “Guide on Disability Ratios of the Regulation on Disability Assessment for Adults” published in the Official Gazette dated 20.02.2019 and numbered 30692, the “Regulation on Impairment Criteria, Classification and Health Board Reports for Persons with Disabilities” published in the Official Gazette dated 30.03.2013 and numbered 28603, and the “Regulation on Determination of Loss of Working Capacity and Occupational Earning Capacity” [6–9].

In our study, 47 individuals under 18 years of age were evaluated in terms of demographic parameters, trauma origin, month and season of injury, year, anatomical injury site, presence of bone fracture, injury type, and need for special care. Cases evaluated for disability determination and for which percentage calculation was performed were included in the study, while repeated applications, cases for which preliminary forensic reports were issued due to lack of evaluable medical documentation, and reports requested for purposes other than disability determination were excluded.

The obtained data were analyzed using IBM SPSS Statistics 22. Descriptive statistical methods were used in statistical analysis.

Results

It was observed that 95.7% of the cases included in this study were citizens of the Republic of Türkiye and 4.3% were foreign nationals. Therefore, no evaluation was made in this regard since a comparison based on nationality would not be statistically significant. The mean age of the cases was 11.7. A marked difference in favor of the male gender was observed between genders. Of the cases, 33 (70.2%) were male and 14 (29.8%) were female.

Of the total 47 cases included in the study, traffic accidents were the leading cause of injury in 42 cases (89.4%). Injury occurred due to sharp object injuries in 2 cases (4.3%), due to falls in 1 case (2.1%), and due to other causes in 2 cases (4.3%) (Table 1).

Table 1. Cause of Injury

Cause of injury	Number (%)
Traffic accident	42 (89.4)
Sharp force injury	2 (4.3)
Fall	1 (2.1)
Other	2 (4.3)
Total	47 (100)

As a result of injury, bone fractures occurred in 26 of 33 males, while bone fractures were observed in all 14 females (Table 2).

Table 2. Bone fracture-gender distribution

Bone fracture-gender distribution	Bone fracture present (%)	No bone fracture (%)	Total (%)
Male	26 (78.8)	7 (21.2)	33 (100)
Female	14 (100)	0 (0)	14 (100)
Total	40 (85.1)	7 (14.9)	47 (100)

It was observed that 34% of the cases occurred in summer, 27.7% in autumn, 21.3% in winter, and 17% in spring (Figure 1).

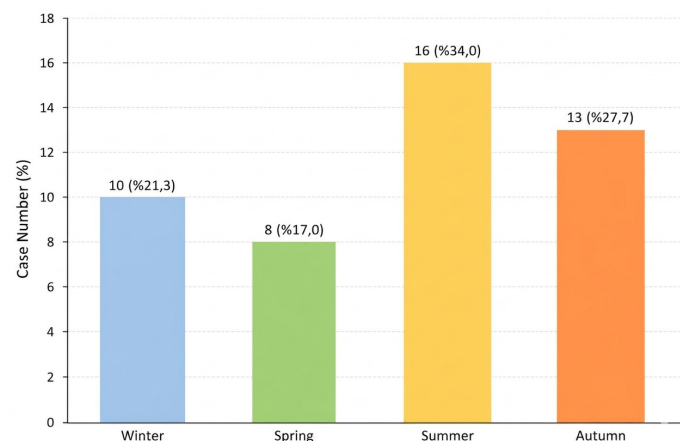


Figure 1. Seasonal distribution of the cases

In both genders, the most common injury site was extremities (45%). Body regions evaluated for disability ratio determination were classified as musculoskeletal system, nervous system, Ear, Nose, and Throat (ENT), skin, urogenital system, respiratory system, and visual system. In both genders, the most frequently evaluated system was the musculoskeletal system (40%), while the least frequently evaluated systems were the respiratory system (1.4%) and visual system (1.4%). In 11 cases, no traumatic lesion, anatomical or functional loss that would constitute disability under the regulations requested by judicial authorities was found, or the existing sequelae were found to have healed without causing permanent disability.

Among the total 47 cases under 18 years of age sent by courts, disability reports were requested under the “Regulation on the Assessment of Special Needs for Children” [9] in 19 cases, under the “Guide on Disability Ratios of the Regulation on Disability Assessment for Adults” [6] in 20 cases, under the “Regulation

on Impairment Criteria, Classification and Health Board Reports for Persons with Disabilities” [8] in 7 cases, and under the “Regulation on Determination of Loss of Working Capacity and Occupational Earning Capacity” [7] in 1 case (Table 3).

Table 3. Regulations requested by the courts

Regulation requested by the courts	Number (%)
Regulation on the assessment of special needs for children	19 (40.4)
Field guide on disability rates of the regulation on disability assessment for adults	20 (42.6)
Regulation on impairment criteria, classification and health board reports for persons with disabilities	7 (14.9)
Regulation on procedures for determination of loss of working capacity and occupational earning capacity	1 (2.1)
Total	47 (100)

DISCUSSION

Childhood permanent functional loss constitutes a more complex clinical and legal process compared to adults due to growth and developmental potential. Etiologically, traffic accidents were the leading cause in 42 of 47 cases (89.4%). Krzysztof Goniewicz et al. reported in their study published in 2017 that traffic accident-related injuries are more common in children than cancer and birth defects and are a leading cause of death [10].

Many causes lead to injury in children; however, motor vehicle accidents cause the highest number of serious injuries and deaths in all pediatric age groups [11]. Motor vehicle accidents, including passenger, bicycle, and pedestrian injuries, account for approximately half of childhood injury-related deaths [12]. The primary cause of disability in our study was also determined to be traffic accidents.

In our study, 70.2% of the cases (n=33) were male. This high rate is consistent with studies by Ural et al. and Yazıcı and Can, which emphasize male predominance in childhood injuries [5,13]. The main reason is considered to be the higher participation of male children in risky outdoor activities. In the study of E. Verhagen et al. on physical activity and sports-related injuries in children aged 10–12 years, a higher injury rate was reported in girls compared to boys [14]. Although our study is generally consistent with the literature, the difference in Verhagen et al.’s findings may be attributed to sociocultural and geographical differences.

Regarding seasonal distribution, the highest rate of cases was observed in summer with 34% (n=16). Similarly, Eva Jespersen et al. showed that musculoskeletal extremity injuries increased by 46% and injury prevalence by 32% in summer compared to winter in school-aged children [15]. This is explained by increased outdoor activity during holidays.

In the study of Hekimoğlu et al., traffic accidents constituted the majority of cases (91.6%), male gender predominance was observed (69.9%), and cases most frequently occurred in summer

(33%), with pelvis and lower extremity injuries being most common [16]. Ahmer Zaeema and Siddiqui Aisha reported that bone injuries occurred in 79.8% of cases and lower extremities were the most affected body region (57.1%) [17], which is consistent with our findings.

In one case, a disability report was issued under the “Regulation on Determination of Loss of Working Capacity and Occupational Earning Capacity” [7] the largest tertiary care hospital of Karachi. Method A descriptive cross-sectional study was done in January-March 2019 among 371 respondents aged 15-65 years. Study participants were recruited through non-probability convenience sampling. A structured questionnaire was used to collect data on sociodemographic variables and type, severity and nature of injury. Chi Square test was used to determine the significant difference between using safety precautions with body parts affected. All analysis was performed on SPSS version 20. Results Out of 371 study participants, 64.4% (n=239 and it was observed that the femoral shaft fracture due to accident had completely healed, with no limitation in hip and knee joint range of motion, and a loss of occupational earning capacity was determined. It was also observed that the same individual would not receive a disability rating under other regulations, indicating significant differences between regulations and that inappropriate regulation selection may lead to loss of rights. Therefore, standardization of guidelines used in disability calculations, evaluation based on the regulation in force at the time of injury, and consistent use of a single evaluation system are important to prevent loss of rights.

CONCLUSION

Consistent with the literature, it was observed that traffic accidents were the most common cause of injury among cases referred for disability determination by judicial authorities, that these injuries occurred more frequently in summer, and that they were more common in males. In individuals aged 0–18 years, preventive education on traffic rules and traffic safety, awareness activities, and inspections conducted more intensively during

summer months through verbal and written communication channels are considered to reduce injuries to a minimum, and the use of standardized evaluation methods is considered to minimize the risk of loss of rights.

Conflict of Interests

The authors declare that there is no conflict of interest in the study.

Financial Disclosure

The authors declare that they have received no financial support for the study.

Ethical Approval

Approval was obtained from the Scientific Research and Publication Ethics Committee of İnönü University Health Sciences Scientific Research Ethics Committee (Session Date: 14-10-2025, Session Number: 13, Decision Number: 2025/8329).

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