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I'm a Little Refugee in ED: Trauma Exposure and Outcomes in Refugee Children

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ABSTRACT

Aim: This study aimed to investigate the trauma mechanisms, clinical characteristics, and outcomes of refugee children presenting to the emergency department (ED) due to physical injuries.

Material and Methods: This retrospective observational study was conducted at the ED Duzce University school of Medicine Hospital between January 1, 2020, and December 31, 2024. Pediatric patients under the age of 18, identified as refugees or temporary asylum seekers and admitted due to physical trauma, were included. Data regarding demographics, trauma mechanisms, clinical and laboratory findings, and outcomes were analyzed. Psychological trauma cases were excluded. Children who are also foreign nationals but who entered the country for reasons other than asylum, such as work, travel, or education, are excluded.

Results: A total of 167 patients were included. The median age was 11 years (IQR: 4–14), and 37.1% were female. The most frequent trauma mechanisms were falls (45.5%), play-related accidents (16.2%), physical assault (13.8%), and traffic accidents (13.8%). Hospitalized patients were younger (7.5 vs. 12 years, p=0.014), had higher ambulance usage (62.5% vs. 14.3%, p<0.001), and higher mortality (12.5% vs. 0%, p<0.001). Lower hemoglobin, platelet, and uric acid levels, and higher leukocyte counts were observed in hospitalized patients (p<0.05).

Conclusion: Refugee children, particularly younger age groups, are at increased risk for severe trauma and related complications. These findings highlight the urgent need for targeted injury prevention strategies and age-specific protection measures in refugee communities.

Keywords: Refugee children; trauma; emergency department; pediatric trauma; refugee health.

Acil Serviste Küçük Bir Mülteciyim: Mülteci Çocuklarda Travma Maruziyeti ve Sonuçları

ÖZ

Amaç: Bu çalışmada, acil servise fiziksel travma nedeniyle başvuran mülteci çocukların travma mekanizmaları, klinik özellikleri ve sonuçlarının değerlendirilmesi amaçlanmıştır.

Gereç ve Yöntemler: Bu geriye dönük gözlemsel çalışma, 1 Ocak 2020- 31 Aralık 2024 tarihleri arasında Düzce Üniversitesi Tıp Fakültesi Hastanesi Acil Servisi'nde yürütülmüştür. Fiziksel travma nedeniyle başvuran, 18 yaş altı ve mülteci veya geçici sığınmacı statüsünde olan çocuk hastalar çalışmaya dahil edilmiştir. Demografik veriler, travma nedenleri, klinik ve laboratuvar bulgular ile hasta sonuçları analiz edilmiştir. Psikolojik travma olguları dışlanmıştır. Yabancı uyruklu olan, ancak iş, gezi ya da eğitim gibi sığınma talebi dışında nedenlerle ülkeye giriş yapan çocuklar dışlanmıştır.

Bulgular: Toplam 167 hasta çalışmaya dahil edilmiştir. Hastaların medyan yaşı 11 (IQR: 4–14) yıl, %37,1'i kızdır. En sık travma nedenleri düşme (%45,5), oyun kazası (%16,2), fiziksel saldırı (%13,8) ve trafik kazası (%13,8) idi. Hastaneye yatırılan hastalar daha küçük yaşta (7,5 vs. 12 yıl, p=0,014), daha yüksek ambulans kullanımı (%62,5 vs. %14,3, p<0,001) ve mortalite (%12,5 vs. %0, p<0,001) oranına sahipti. Bu grupta hemoglobin, trombosit ve ürik asit düzeyleri düşük, lökosit sayıları ise yüksekti (tümü p<0,05).

Sonuç: Mülteci çocuklar, özellikle küçük yaş grubu, ciddi travma ve komplikasyonlar açısından yüksek risk altındadır. Bulgular, bu kırılgan gruba yönelik yaşa özel koruyucu stratejilere duyulan ihtiyacı vurgulamaktadır.

Anahtar Kelimeler: Mülteci çocuklar; travma; acil servis; pediatrik travma; mülteci sağlığı.

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INTRODUCTION

Over the past decades, the number of forcibly displaced individuals, including refugees and asylum seekers, has risen dramatically. According to the United Nations High Commissioner for Refugees, by the end of 2022, over 100 million people were forcibly displaced worldwide, marking the highest levels ever recorded (1,2). This unprecedented humanitarian crisis has placed substantial strain on healthcare systems globally, particularly on emergency and acute care services in host countries.

Forced migration due to armed conflict, persecution, and generalized violence exposes individuals to a multitude of health vulnerabilities. Refugees frequently face substandard living conditions, limited access to healthcare, and increased risks of infectious diseases, malnutrition, and mental health disorders (3). Among these health threats, trauma-related injuries remain underexplored, despite evidence indicating disproportionately high rates of physical trauma, violence, and accidents within displaced populations (4,5).

Türkiye, at the crossroads of Europe and Asia, has been significantly impacted by regional instability, especially the Syrian civil war and other conflicts in neighboring regions. As of 2024, Türkiye hosts the world's largest refugee population, an estimated 3.6 million registered Syrians under temporary protection, in addition to numerous undocumented asylum seekers from Afghanistan, Iraq, and various African countries (6). This mass influx has created major challenges for the Turkish healthcare system, including overcrowded emergency departments (EDs), language and cultural barriers, and resource limitations.

Refugees' vulnerability is amplified by disrupted social structures, economic insecurity, and limited health literacy. Prior studies have shown that traumatic events such as physical assault, interpersonal violence, transportation-related injuries, and occupational accidents are more prevalent among refugees than among host populations (7,8), resulting in both acute and long-term health consequences.

Children represent a particularly fragile subgroup within refugee communities. Owing to their developmental stage, refugee children are especially vulnerable to injury and psychological trauma (9). Exposure to traumatic events during critical periods of growth can have profound, lasting impacts on their physical and mental health, educational attainment, and social integration (10,11). Furthermore, refugee children often live in unsafe environments with inadequate supervision, increasing their risk of traumatic injuries.

Given the limited evidence and growing pediatric refugee populations, there is an urgent need to document the specific trauma-related health profiles and intervention requirements of these vulnerable children. This study aims to examine the trauma characteristics, clinical findings, and outcomes of refugee children presenting to the ED due to physical injuries, in order to contribute to the limited body of knowledge on pediatric refugee trauma and guide evidence-based interventions.

MATERIAL AND METHODS

Study Setting and Design

This was a single-center, retrospective observational study conducted in the ED of Düzce University School of Medicine Hospital, a tertiary healthcare institution located in Türkiye. The study covered a five-year period from January 1, 2020, to December 31, 2024. Ethical approval for the study was obtained from the Düzce University School of Medicine Non-Interventional Clinical Research Ethics Committee (approval date and number: 10.03.2025 – 2025/44) prior to data collection.

Selection of Participants and Study Protocol

The study included patients under the age of 18 who presented to the ED due to physical trauma and were identified as refugees or temporary asylum seekers. In this study, refugee children were defined as individuals residing in Türkiye without citizenship or official residence permits, having entered the country due to war, persecution, or similar causes. Citizens of any country who had acquired Turkish citizenship were excluded from the study, even if they had previously held refugee status. Only patients with a principal diagnosis of physical trauma (ICD-10 codes S00–T98) were included. Patients with isolated psychological trauma, such as acute stress reaction or post-traumatic stress disorder (ICD-10 codes F43.x), were excluded from the study.

Data were collected retrospectively from the hospital information management system, archived patient records, and ED admission logs. For each eligible patient, the following variables were extracted: age, sex, vital signs at admission, physical examination findings, presence of underlying chronic diseases, laboratory and imaging results, emergency department diagnoses, disposition status (discharged or hospitalized), and mortality outcomes. Patients presenting with psychological trauma or whose records were incomplete were excluded from the study.

Statistical Analysis

All statistical analyses were performed using IBM SPSS Statistics for Windows, Version 23.0 (IBM Corp., Armonk, NY, USA). The normality of distribution for continuous variables was assessed using the Kolmogorov-Smirnov test. Descriptive statistics for categorical variables were presented as numbers and percentages [n(%)]. For continuous variables, data were expressed as mean ± standard deviation if normally distributed, or as median (interquartile range, Q1–Q3) if not normally distributed. Comparisons between groups were performed using the Student's t-test for normally distributed variables and the Mann–Whitney U test for non-normally distributed variables. Categorical variables were compared using the Chi-square test. A p-value of <0.05 was considered statistically significant.

RESULTS

A total of 167 refugee pediatric trauma patients were included in the study. All eligible patients during the study period were included. A post hoc power analysis was conducted to assess the adequacy of the sample size for detecting significant differences in both age and hemoglobin levels between hospitalized (n=41) and non-hospitalized (n=119) patients. For age, the observed mean values were 7.9 ± 5.2 years for hospitalized and 10.3 ± 5.5 years for non-hospitalized patients (Cohen's d = 0.45). For hemoglobin, the mean values were 11.04 ± 1.78 g/dL and 11.98 ± 1.10 g/dL, respectively (Cohen's d = 0.72). With

these effect sizes, sample sizes, and a significance level of $\alpha = 0.05$ (two-tailed), the calculated statistical power for detecting differences exceeded 80% for age and 95% for hemoglobin (calculated using G*Power 3.1 software). Therefore, our study had sufficient power to detect clinically meaningful differences between groups for these key parameters. The median age was 11.00 years (IQR: 4.00–14.00), and 62 (37.13%) were female. Of the total, 48 (28.74%) were hospitalized, while 119 (71.26%) were discharged from the emergency department (Table 1).

Table 1. Comparison of clinical, demographic, and laboratory characteristics according to hospitalization status in refugee pediatric trauma patients

Parameter	Non-hospitalized (n=119)	Hospitalized (n=48)	p
Gender: Female (n, %)	41 (34.45)	21 (43.75)	0.260*
Age (years), Median (Q1–Q3)	12.00 (4.00–15.00)	7.50 (3.00–12.00)	0.014
Ambulance arrival (n, %)	17 (14.29)	30 (62.50)	<0.001*
Clinical status "good" (n, %)	118 (99.16)	38 (79.17)	<0.001*
Comorbidities (n, %)	11 (9.24)	5 (10.42)	0.816**
Congenital anomaly (n, %)	4 (3.36)	3 (6.25)	0.323**
Physical deformity (n, %)	10 (8.40)	2 (4.17)	0.275**
Hemoglobin (g/dL), Median (Q1–Q3)	12.00 (11.50–12.66)	11.02 (9.26–12.07)	<0.001
Platelet ($\times 10^9$/L), Median (Q1–Q3)	315.00 (300.00–320.00)	274.00 (228.00–306.00)	<0.001
Leukocyte ($\times 10^3$/µL), Median (Q1–Q3)	8.00 (7.00–9.00)	9.45 (6.00–12.90)	0.022
Sodium (mmol/L), Median (Q1–Q3)	138.00 (136.00–140.00)	137.00 (135.00–138.00)	0.009
Calcium (mg/dL), Median (Q1–Q3)	9.20 (9.00–9.50)	9.50 (9.02–9.90)	0.037
Uric acid (mg/dL), Median (Q1–Q3)	3.30 (2.90–3.60)	3.60 (2.95–4.30)	<0.001
Bone fracture (n, %)	4 (3.36)	25 (52.08)	<0.001*
Organ injury (n, %)	0 (0.00)	10 (20.83)	
Surgery required (n, %)	0 (0.00)	24 (50.00)	
Mortality (n, %)	0 (0.00)	6 (12.50)	

All values are presented as numbers and percentages [n (%)] for categorical variables, and as median (first–third quartile) for continuous variables. Comparisons of categorical variables were performed using the Pearson Chi-square test (indicated by *) or Fisher's Exact test (indicated by **), as appropriate. Continuous variables were compared using the Mann–Whitney U test. A p-value of <0.05 was considered statistically significant. Q1–Q3: first and third quartiles.

Patients originated from nine countries. The most common nationalities were Iraqi [69 (41.32%)], Syrian [59 (35.33%)], and Afghan [18 (10.78%)], followed by Azerbaijani [6 (3.59%)], Iranian [5 (2.99%)], Sudanese [4 (2.40%)], Pakistani [3 (1.80%)], Jordanian [2 (1.20%)], and Algerian [1 (0.60%)] (Table 2).

Table 2. National distribution of refugee pediatric trauma patients

Nationality	n (%)
Iraq	69 (41.32)
Syria	59 (35.33)
Afghanistan	18 (10.78)
Azerbaijan	6 (3.59)
Iran	5 (2.99)
Sudan	4 (2.40)
Pakistan	3 (1.80)
Jordan	2 (1.20)
Algeria	1 (0.59)
Total	**167 (100.00)**

All values are presented as numbers and percentages [n (%)]. Percentages are shown with two decimal places. The total number of patients is 167 (100.00%).

The most frequent causes of trauma were falls [76 (45.51%)], play-related accidents [27 (16.17%)], physical assault [23 (13.77%)], and traffic accidents [23 (13.77%)]. Other causes included other accidental injuries [10 (5.99%)], animal attacks [4 (2.40%)], occupational injuries [2 (1.20%)], earthquake-related trauma [1 (0.60%)], and suicide attempts [1 (0.60%)] (Table 3).

Table 3. Trauma mechanisms and causes of emergency department admission in refugee pediatric patients

Trauma mechanism	n (%)
Fall	76 (45.51)
Play-related accident	27 (16.17)
Physical assault	23 (13.77)
Traffic accident	23 (13.77)
Other accidental injuries	10 (5.99)
Animal attack	4 (2.39)
Occupational injury	2 (1.20)
Earthquake-related trauma	1 (0.60)
Suicide attempt	1 (0.60)
Total	**167 (100.00)**

Hospitalized patients had a significantly lower median age [7.50 years (IQR: 3.00–12.00)] compared to non-hospitalized patients [12.00 years (IQR: 4.00–15.00)] ($p = 0.014$). The rate of ambulance arrival was significantly higher among hospitalized patients [30 (62.50%)] than among non-hospitalized patients [17 (14.29%)] ($p < 0.001$). A good clinical condition at admission was recorded in 38 (79.17%) of hospitalized patients and 118 (99.16%) of non-hospitalized patients ($p < 0.001$).

Hemoglobin levels were significantly lower in hospitalized patients [median: 11.02 g/dL (IQR: 9.26–12.07)] compared to non-hospitalized patients [median: 12.00 g/dL (IQR: 11.50–12.66)] ($p < 0.001$), as were platelet counts [median: 274.00 $\times 10^9$/L (IQR: 228.00–306.00) vs. 315.00 $\times 10^9$/L (IQR: 300.00–320.00), $p < 0.001$]. Leukocyte counts were higher in the hospitalized group [median: 9.45 $\times 10^3/\mu$L (IQR: 6.00–12.90)] than in the non-hospitalized group [median: 8.00 $\times 10^3/\mu$L (IQR: 7.00–9.00)] ($p = 0.022$). Statistically significant differences were also found in sodium [median: 137.00 mEq/L (IQR: 135.00–138.00) vs. 138.00 mEq/L (IQR: 136.00–140.00), $p = 0.009$], calcium [median: 9.50 mg/dL (IQR: 9.02–9.90) vs. 9.20 mg/dL (IQR: 9.00–9.50), $p = 0.037$], and uric acid levels [median: 3.60 mg/dL (IQR: 2.95–4.30) vs. 3.30 mg/dL (IQR: 2.90–3.60), $p < 0.001$].

Bone fractures were present in 25 (52.08%) of hospitalized patients and 4 (3.36%) of non-hospitalized patients ($p < 0.001$). Organ parenchymal injuries and surgical interventions were reported only in the hospitalized group [10 (20.83%) and 24 (50.00%), respectively]. All mortality cases [6 (3.59%)] occurred among hospitalized patients [6 (12.50%)], while no deaths were recorded in the non-hospitalized group (Table 1).

DISCUSSION

One of the most noteworthy findings of this study is that refugee children who required hospitalization due to trauma were significantly younger than those who were discharged from the ED. The median age of hospitalized patients was 7.5 years, compared to 12 years in the non-hospitalized group. This age disparity underscores the heightened vulnerability of younger children not only in

Another notable finding of this study was the relatively high rate of ambulance utilization among refugee children, particularly those requiring hospitalization. While 28.1% of all patients arrived by ambulance, this rate rose to 62.5% among those admitted for inpatient care. This observation reflects the accessibility and operational effectiveness of prehospital emergency services in Türkiye, including for displaced and vulnerable populations (6,18). Unlike many countries where refugee communities face significant barriers to emergency transportation, the Turkish healthcare system appears to offer equitable ambulance access regardless of citizenship status. Nevertheless, it is essential to acknowledge that undocumented or uninsured refugees may still experience hidden access barriers, and further research is warranted to assess coverage gaps across different migrant subgroups. Even so, the present findings suggest a promising degree of integration between refugee populations and emergency medical services in Türkiye (15).

In terms of trauma mechanisms, falls were the most common cause of injury in this cohort, followed by play-

terms of their physical fragility, but also in their increased dependence on adult supervision and protective environments. In the context of forced migration and socioeconomic adversity, such protective mechanisms are often disrupted or entirely absent (12,13). As a result, younger refugee children may be at greater risk of sustaining severe injuries due to neglect, unsafe living conditions, or lack of access to structured, child-friendly spaces (4,5,13). These findings underscore the urgent need for targeted preventive strategies and public health policies that safeguard the youngest members of displaced populations. Possible interventions may include improving the living conditions of refugee families, implementing community-based surveillance to identify environmental hazards, and offering culturally sensitive parental education on child safety and injury prevention (14,15). Furthermore, collaboration among local governments, healthcare providers, and social services is essential to ensure that refugee children are provided with safe and developmentally appropriate environments in which to live and grow. The relationship between younger age and increased trauma severity among refugee children has also been emphasized in prior literature. For example, studies conducted in Türkiye and other host countries have shown that younger refugee children experience disproportionately higher rates of preventable injuries and ED admissions due to falls, burns, and blunt trauma (5,12,13). However, unlike many previous studies, our findings statistically demonstrate that younger age was significantly associated with hospital admission, surgery, and mortality suggesting a direct link between early childhood and the risk of high-impact trauma. While, some of this vulnerability may be physiological, it is also reflective of broader structural deficits: overcrowded housing, absence of safe play spaces, and insufficient adult supervision have all been cited as contributing factors in the injury burden among displaced children (4,16,17). By confirming these associations in a single-center cohort, our study adds to the growing body of evidence that refugee children, especially those in early developmental stages, require specific, age-focused protective strategies within host communities.

related accidents, physical assault, and traffic-related trauma. These findings are in line with prior studies indicating that falls constitute the predominant injury mechanism among refugee children, particularly those living in overcrowded and poorly supervised environments (12,13,17). While falls and play-related accidents may reflect the absence of safe recreational spaces and structured daily routines, the notable rates of physical assault (13.8%) and traffic accidents (13.8%) are particularly concerning. Assault-related trauma may indicate exposure to interpersonal violence, including peer violence or potential abuse, which has been reported in refugee communities facing social marginalization and unstable domestic conditions (4,7,16). Similarly, traffic-related injuries may be attributed to unsafe urban infrastructure, inadequate traffic regulation enforcement, or limited public awareness of pedestrian safety in low-income and refugee-dense neighborhoods (15,17,19). Collectively, these trauma patterns emphasize the need for comprehensive community-based interventions that focus on environmental safety audits, the development of secure

play areas, and the inclusion of refugee families in public safety and injury prevention campaigns.

A closer examination of the national distribution of refugee patients in this study reveals that the majority originated from Iraq (41.3%) and Syria (35.3%) countries that have experienced years of armed conflict, economic hardship, and political repression. In such environments, healthcare infrastructure is often fragmented or inaccessible, and societal conditions are insufficient to ensure the basic safety of children. For many families, migration is not only an escape from direct violence but also a deliberate act to protect their children from the cumulative effects of instability, poverty, and futurelessness. The primary hope driving such journeys is the prospect of raising their children in a safer and more stable environment. In this context, the injuries seen among refugee children are not simply clinical events; they are echoes of deeper, systemic failures. Understanding this broader narrative is essential in framing trauma care not only as an emergency response, but as part of a larger effort to restore security and dignity to displaced families.

Laboratory findings in our study further reflected the physiological burden experienced by hospitalized refugee children. Significantly lower hemoglobin and platelet levels, alongside elevated leukocyte counts, suggest an acute systemic response to trauma, potentially involving hemorrhage, inflammation, and immune activation. These patterns are consistent with prior research highlighting that severe pediatric trauma is frequently accompanied by hematological alterations indicative of both blood loss and stress-induced bone marrow suppression (7,20). Additionally, hospitalized patients exhibited markedly lower serum uric acid (SUA) levels compared to non-hospitalized peers. This finding may carry prognostic significance. Our previous studies have shown that decreased SUA levels are associated with adverse outcomes in critical conditions such as ischemic stroke and acute medical presentations (21,22). While uric acid is traditionally viewed as a metabolic byproduct, recent evidence suggests that it plays antioxidant and immunomodulatory roles in acute stress physiology. In this context, hypouricemia in severely injured children may reflect increased oxidative stress or consumption due to high metabolic demand. Further studies are needed to evaluate SUA as a potential biomarker for trauma severity and prognosis in pediatric populations.

This study has several limitations that should be acknowledged. First, the study was conducted in a single tertiary care center, which may limit the generalizability of findings to other regions or healthcare settings. Second, the retrospective design of the study has inherent limitations, including reliance on existing records, potential for incomplete data, and inability to establish causal relationships. Third, the study exclusively focused on physical trauma and did not include cases of psychological or emotional trauma, which are also prevalent among displaced children. Fourth, undocumented refugee children who did not present to formal healthcare services may have been underrepresented, potentially leading to an underestimation of the true burden of pediatric trauma in refugee populations. Fifth, this study did not include a control group of non-refugee children for comparison, which limits interpretation regarding relative trauma risk. Additionally, since socioeconomic and cultural variables were not analyzed, it was not possible to clearly establish the social origins of trauma mechanisms. Finally, while the inclusion of laboratory markers such as uric acid provided novel insights, the study design did not allow for the assessment of long-term clinical outcomes. Further prospective studies are warranted to explore their prognostic value.

CONCLUSION

This study highlights the significant burden of physical trauma among refugee children, particularly those of younger age, who are disproportionately represented among the most severely injured. The findings underscore the urgent need for age-specific protection strategies, especially in communities affected by displacement, poverty, and structural instability. While Türkiye's healthcare system demonstrates commendable accessibility, evidenced by high rates of ambulance use and emergency care, preventable trauma mechanisms such as interpersonal violence and traffic accidents remain a critical concern. Interventions must extend beyond clinical care to encompass community-based safety initiatives, parental education, and the development of secure living environments. Refugee children are not only patients in emergency departments; they are vulnerable individuals whose safety, development, and dignity must be protected through coordinated public health and social policy efforts. Future studies should focus not only on clinical outcomes but also on the effectiveness of community-based preventive interventions targeting refugee populations.

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REFERENCES

1. Gormeli Kurt N, Unutmaz M, Bayazıt Keskin R, Gök A, Elmas Akgün F, Genc M, et al. Forensic and health challenges of refugees in turkish emergency departments: a retrospective analysis. Med Sci Monit. 2025;31:e947454.
2. United Nations High Commissioner for Refugees (UNHCR). The UN Refugee Agency (UNRA). Global Trends. Forced Displacement in 2023. Available from: https://www.unhcr.org/sites/default/files/2024-06/global-trends-report-2023.pdf.
3. Erat Nergiz M, Yalçın SS, Yalçın S. Unraveling infant feeding practices among syrian refugees in türkiye: a cross-sectional study. Nutrients. 2025;17(4):684.
4. Uwishema O, Kwan Su Huey A, Sengar AS, Patel RP, Kazan Z, Choudhary K. Addressing the health needs of refugees and migrants in Türkiye: a literature review. Health Sci Rep. 2025;8(2):e70442.
5. Kunuroglu F, Yuzbasi DV, Kaval S, Kucukyilmaz E. Comparative evaluation of health status of Syrian refugee and Tur CCH_70042 kish children, alongside the factors influencing sociocultural adaptation of

Syrian children in Türkiye. Child Care Health Dev. 2025;51(1):e70042.
6. Tuz C, Abdulkader BN, Gültekin İ, Selçuk KN, Alper Z. Perspectives of Turkish family physicians towards refugee patients and primary health care: a qualitative study. Heliyon. 2024;10(22):e40377.
7. Doğan Ö, Karadağ A, Beşer A. The health needs of sSyrian refugees in context of social determinants of health: the case of Turkey. Florence Nightingale J Nurs. 2024;32(1):36-42.
8. Belibağlı MC, Gökmen MY, Pamiry A. Differences in the rates of admission and major orthopedic surgery care between Turkish and displaced children injured in a major earthquake. Scand J Trauma Resusc Emerg Med. 2024;32(1):111.
9. Esin K, Işık T, Ayyıldız F, Koc M, Vatanparast H. Prevalence and risk factors of food insecurity among Syrian refugees in Türkiye. BMC Public Health. 2024;24(1):1748.
10. Rawers C, Redican E, Alpay EH, McElroy E, Shevlin M. Multiple trauma exposure and psychopathology in Syrian refugees living in Turkey: a latent class analysis. Acta Psychol (Amst). 2024;245:104220.
11. Barış M, Sert G, Önder O. Ethical challenges in accessing and providing healthcare for Syrian refugees in Türkiye. Bioethics. 2025;39(1):49-57.
12. Tătăranu E, Ion L, Nemțoi A, Filip F, Axinte S, Axinte R, et al. Emergency Care for refugee patients at suceava hospital, Romania: challenges and insights from the first year of the Russian-Ukrainian conflict. Healthcare (Basel). 2025;13(2):138.
13. Sahin E, Dagli TE, Acarturk C, Sahin Dagli F. Vulnerabilities of Syrian refugee children in Turkey and actions taken for prevention and management in terms of health and wellbeing. Child Abuse Negl. 2021;119(Pt 1):104628.
14. Çetin S, Gedikbaş M, Gedikbaş Ş S. Evaluation of foreign national cases applied to Tokat Gaziosmanpasa University Hospital Forensic Medicine Department, 2014-2022. Int J Legal Med. 2024;138(5):2015-20.
15. Borgschulte HS, Wiesmüller GA, Bunte A, Neuhann F. Health care provision for refugees in Germany - one-year evaluation of an outpatient clinic in an urban emergency accommodation. BMC Health Serv Res. 2018;18(1):488.
16. Saunders NR, Guan J, Macpherson A, Lu H, Guttmann A. Association of Immigrant and Refugee Status With Risk Factors for Exposure to Violent Assault Among Youths and Young Adults in Canada. JAMA Netw Open. 2020;3(3):e200375.
17. Nijman RG, Krone J, Mintegi S, Bidlingmaier C, Maconochie IK, Lyttle MD, et al. Emergency care provided to refugee children in Europe: RefuNET: a cross-sectional survey study. Emerg Med J. 2021;38(1):5-13.
18. Bildik B, Aker M. Demographic and clinical characteristics of migrant patients visiting the emergency department. Cureus. 2023;15(5):e39746.
19. Sahin A, Agar A, Hancerli CO, Kilic B, Gulabi D, Erturk C. Epidemiologic study of Syrian refugees underwent surgery due to fracture in a tertiary reference hospital in Turkey. Cureus. 2021;13(2):e13323.
20. Tuşat M, Özmen İ, Demirtaş MS, Ateş C, Öztürk AB, Kankılıç NA, et al. Risk factors for mortality and morbidity in Syrian refugee children with penetrating abdominal firearm injuries: an 1-year experience. Ulus Travma Acil Cerrahi Derg. 2023;29(9): 1051-60.
21. Şengüldür E, Demir MC, Selki K. Prevalence and clinical significance of hypouricemia in the emergency department. Medicine (Baltimore). 2024;103(52):e41105.
22. Şengüldür E, Demir MC. Evaluation of the association of serum uric acid levels and stroke in emergency department patients. Duzce Medical Journal. 2024;26(2):112-7.