

# Clinical and sociodemographic characteristics of refugee children applying for Special Needs Report for Children (SNRC)

 Meryem Kaşak<sup>1</sup>,  Yusuf Selman Çelik<sup>1</sup>,  Tayfun Öz<sup>2</sup>,  Makbule Esen Öksüzoğlu<sup>3</sup>,  
 Huriye Berna Devocioğlu<sup>1</sup>,  Şeyma Gürbüz<sup>1</sup>,  Hande Günel Okumuş<sup>4</sup>,  Yusuf Öztürk<sup>1</sup>

<sup>1</sup>Department of Child and Adolescent Psychiatry, Ankara Etlik City Hospital, Ankara, Türkiye

<sup>2</sup>Department of Psychiatry, Ankara Etlik City Hospital, Ankara, Türkiye

<sup>3</sup>Department of Child and Adolescent Psychiatry, Kastamonu Training and Research Hospital, Kastamonu, Türkiye

<sup>4</sup>Department of Child and Adolescent Psychiatry, Uşak Training and Research Hospital, Uşak, Türkiye

**Cite this article as:** Kaşak M, Çelik YS, Öz T, et al. Clinical and sociodemographic characteristics of refugee children applying for Special Needs Report for Children (SNRC). *Kastamonu Med J.* 2025;5(2):103-110.

Received: 30.12.2024

Accepted: 14.04.2025

Published: 20.06.2025

## ABSTRACT

**Aims:** This study aims to examine the clinical and sociodemographic characteristics of refugee children applying for the Special Needs Report for Children (SNRC) in Türkiye. The study seeks to comprehensively address the challenges encountered during these children's health evaluations, particularly the impact of language barriers, and how these challenges affect diagnostic and treatment processes.

**Methods:** A retrospective evaluation was conducted on 251 refugee children who applied to the SNRC outpatient clinic at Ankara Etlik City Hospital between June 2023 and June 2024. Participants were analyzed in terms of age, gender, reasons for application, and the percentages they received in each section of the SNRC evaluation. Difficulties arising from language barriers during psychiatric assessments and the functionality of psychometric tests were also examined.

**Results:** The mean age of the 251 refugee children who applied for SNRC within one year was  $88.92 \pm 56.65$  months. The gender distribution revealed that 40.6% (n=102) were female and 59.3% (n=149) were male. The most common diagnosis was delayed developmental milestones (52.6%). Language barriers emerged as a fundamental issue during the assessment processes and were most frequently observed in the Afghan group (78.3%). In the application of psychometric tests, 30.3% of non-compliance was detected due to language barriers. The recommendation rate for follow-up in Child and Adolescent Psychiatry clinic was highest in the Afghan group (47.8%).

**Conclusion:** Language barriers represent a significant obstacle to refugee children's access to healthcare services. Enhancing translation services and developing cultural adaptation programs are critically important in addressing this issue. This study provides an essential guide for understanding the needs of refugee children and improving healthcare services tailored to them.

**Keywords:** SNRC, child psychiatry, refugee, migrant, child, cognitive development

## INTRODUCTION

Currently, wars, armed conflicts, disasters, and economic crises occurring worldwide have forced millions of people to migrate. Among the groups most affected by these forced migration movements are women and children.<sup>1</sup> Children with refugee status face numerous challenges not only due to the trauma of being forcibly displaced from their home countries but also during the adaptation processes in their host countries.<sup>2</sup> Refugee children and adolescents often face multiple barriers that hinder their adaptation to host communities. These barriers often include language difficulties, cultural incongruence, limited access to supportive social networks, the liminality of residency status, experiences of marginalization and discrimination, and implicit pressure to conform quickly to the expectations of the host community—often accompanied by a perceived obligation to “express gratitude”.<sup>3</sup> Difficulties in accessing basic needs such as shelter, education, nutrition,

and healthcare have profound short- and long-term effects on these children's physical and mental health. While trying to cope with traumatic experiences such as war and violence, refugee children encounter psychosocial problems in their efforts to adapt to a new environment. Post-traumatic stress disorder, depression, anxiety disorders, and adjustment problems are among the most common psychiatric issues observed in refugee children.<sup>3,4</sup> The healthy development of refugee children depends on the provision of comprehensive and sustainable support mechanisms.

Due to its geopolitical position, Türkiye has experienced a significant influx of refugees over the past decade and has become one of the countries hosting the largest refugee population globally.<sup>5</sup> A substantial proportion of the refugee population in Türkiye consists of children. This situation

**Corresponding Author:** Meryem Kaşak, meryemkasak90@gmail.com

necessitates the development of effective strategies within healthcare and education systems tailored to meet the needs of refugee children.

Disability is defined as partial or complete losses in an individual's physical, mental, emotional, sensory, or social abilities caused by congenital or acquired diseases or accidents, which hinder their adaptation to the requirements of normal life.<sup>6</sup> Physical, mental, or sensory disabilities can negatively impact an individual's academic and social life, leading to various challenges.<sup>7</sup> The World Health Organization (WHO) proposes a three-dimensional approach to the concept of special needs in terms of health: impairment, disability, and handicap.<sup>8</sup> Impairment refers to abnormalities in physiological, psychological, or physical functions, while functional limitations resulting from these impairments are referred to as disability. When impairment and disability prevent an individual from fulfilling roles appropriate to their age, gender, and societal expectations, it is defined as a handicap.

The assessment of refugee children within the healthcare system can become even more complex, particularly for children with special needs. Accurately identifying the needs of these children, whose physical and psychosocial development has been adversely affected, is crucial for providing effective support in social, academic, and healthcare domains. In this context, the "Special Needs Report for Children" (SNRC) system implemented in Türkiye emerges as a significant tool for identifying refugee children's special needs and delivering appropriate services to address them. SNRC plays a critical role in identifying and documenting problems affecting children's physical, mental, and emotional development. As a standardized and multidisciplinary assessment instrument, the SNRC facilitates the systematic collection of data on developmental, cognitive, and behavioral difficulties in diverse child populations. Its comprehensive structure allows for the identification of specific needs-particularly among vulnerable groups such as refugee children-that might otherwise go unrecognized in routine health or educational assessments. Accordingly, data obtained through SNRC reports can serve as a valuable foundation for the development of preventive mental health policies, informed budget planning, and the design of community-based, targeted intervention strategies.<sup>9</sup> However, it is noteworthy that the processes involved in refugee children's SNRC applications, as well as their clinical and sociodemographic characteristics, remain underexplored, and there is insufficient academic data on this subject. A study conducted in 2020 reported that 16.4% of the sample consisted of foreign nationals, with the most common reason for application being social rights, accounting for 70.6% of cases.<sup>10</sup> Comprehensive and reliable data regarding refugee children's clinical and sociodemographic profiles are essential for addressing the challenges they face and for developing effective policies aimed at supporting them. In this regard, examining refugee children's SNRC applications will contribute to the more effective organization of healthcare services and provide valuable insights to guide future research in this field.

This study aims to comprehensively analyze the clinical and sociodemographic characteristics of refugee children applying for the SNRC. The study will examine demographic characteristics such as age, gender, nationality, and family

structure of refugee children, along with data concerning their mental and physical health status. Additionally, it will address the challenges faced by child and adolescent mental health specialists during SNRC evaluations, including language barriers and the functionality of the required psychometric tests. The findings obtained will contribute significantly to a better understanding of refugee children's special needs, facilitating the development of necessary strategies for their integration into healthcare and education systems. Furthermore, this study aims to provide data that can guide policymakers and practitioners in supporting refugee children more effectively in the fields of health, education, and social services.

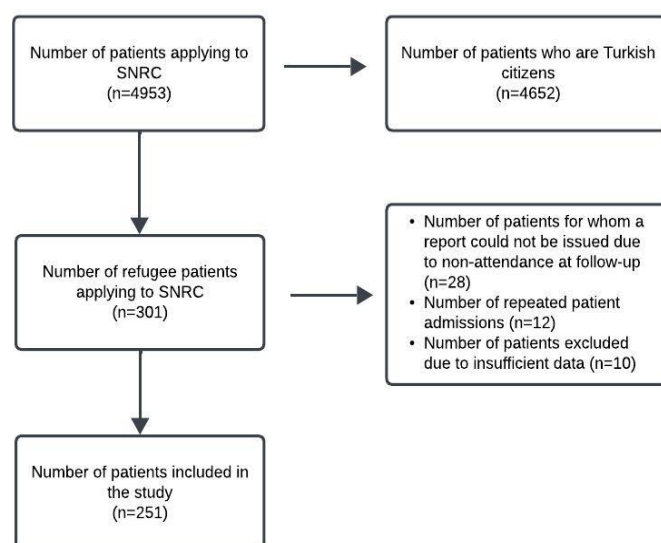
## METHODS

### Ethics

Ethical approval for this retrospective study was obtained from the Ankara Etlik City Hospital Scientific Researches Evaluation and Ethics Committee (Date: 06.11.2024, Decision No: AEŞH-BADEK-2024-726). All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki. As the study is retrospective, informed consent was not obtained, and personal information of individuals was protected during data recording.

### Sample

In this study, data from refugee and asylum-seeking children and adolescents who applied to the SNRC outpatient clinic at Ankara Etlik City Hospital between June 2023 and June 2024 were retrospectively evaluated. The inclusion criteria for this study were: being between the ages of 0 and 18, having undergone evaluation at the SNRC outpatient clinic, and being a refugee or asylum seeker with a temporary Turkish citizenship identification number. The exclusion criteria included being a Turkish citizen and having incomplete patient data. Based on these criteria, a total of 251 children and adolescents were included in the study, consisting of 102 females (40.6%) and 149 males (59.3%), with a mean age of 88.92 months (SD=56.65; median=77; range=2-213 months). The flowchart representing the study registration protocol is shown in **Figure**.



**Figure.** Flowchart of the study-inclusion process of refugee children and adolescents applying to SNRC between June 2023 and June 2024

SNRC: Special Needs Report for Children

## Procedure

The disability rates of the cases were determined based on the “regulation on the special needs assessment for children,” published in the Official Gazette No. 30692 on February 20, 2019. All cases applying to the SNRC health board committee at our hospital were comprehensively evaluated by a team consisting of specialists in ophthalmology, otorhinolaryngology, orthopedics, pediatric neurology, and child and adolescent psychiatry.

Psychiatric assessments were conducted by child and adolescent psychiatry specialists using interviews based on DSM diagnostic criteria as part of routine clinical assessment procedures. Following the assessment, standardized intelligence tests were administered to determine individuals’ intellectual levels. The Wechsler Intelligence Scale for Children-Revised (WISC-R) and the Stanford-Binet Intelligence Test were used to measure intelligence levels in children older than six years. For children under six years of age, the Ankara Developmental Screening Inventory (ADSI) was utilized to evaluate developmental levels.

In this study, data were collected on the reasons for SNRC applications, age, gender, and the countries from which children arrived as refugees, as well as on their diagnosed mental or physical conditions. Additionally, limitations arising during interviews, such as language barriers, difficulties in accessing interpreters, shortcomings in history-taking and examination processes conducted through interpreters, and the inability to address sensitive topics for ethical reasons in the presence of interpreters, were recorded. Language barriers were identified based on clinicians’ observations of communication difficulties during psychiatric assessments, including limited language proficiency in either the child or caregiver, along with the availability of interpreters when needed.

Furthermore, diagnostic tools used, results of psychometric assessments, and the children’s special needs percentages were documented. The existence of psychiatric follow-up for children was also considered as a variable in the study. The limitations caused by language barriers and their effects on the functionality of psychometric tests were analyzed in detail.

## Data Collection Tools

**Wechsler Intelligence Scale for Children-Revised (WISC-R):** The Wechsler Intelligence Scale for Children (WISC)<sup>11</sup> was revised in 1974 and renamed the WISC-R, becoming a widely used intelligence assessment tool for children aged 6 to 16 years. The scale was adapted into Turkish by Savaşır and Şahin in 1995.<sup>12</sup> The WISC-R consists of 10 core subtests and 2 supplemental subtests, categorized into Verbal and Performance subtests. The Verbal subtests include information, similarities, arithmetic, comprehension, vocabulary, and digit span, while the performance subtests include picture completion, picture arrangement, block design, object assembly, coding, and mazes. The scale provides scores for Verbal IQ, Performance IQ, and Full-Scale IQ, along with standardized scores for each subtest.

**Stanford-Binet intelligence test:** In this study, the Fourth Edition of the Stanford-Binet intelligence test (SB-IV) was used to assess cognitive performance.<sup>13</sup> Designed for individuals aged 2 to 23 years, the SB-IV is an individually

administered intelligence test structured around four primary factors; verbal reasoning, abstract/visual reasoning, quantitative reasoning, and short-term memory. The test was administered in one-on-one sessions, scored according to standardized guidelines, and intelligence quotient (IQ) scores were calculated. Additionally, the weighted scores of the four main factors were analyzed to create cognitive profiles.

**Ankara Developmental Screening Inventory (ADSI):** The ADSI inventory is used to evaluate the developmental aspects of children aged 0-6 years. Its validity and reliability have been established in Türkiye.<sup>14</sup> The inventory assesses and scores the following domains; speech development, cognitive skills, fine motor development, gross motor development, social development, self-care skills.

**Turkish Early Language Development Test (TELDT):** Language development in children aged 8-36 months was assessed using the TELDT.<sup>15</sup> TELDT is a parent-report instrument designed to evaluate both receptive and expressive language skills. The test was adapted into Turkish based on the MacArthur-Bates communicative development inventories (CDI).

**Turkish Preschool Language Scale (TPLS):** For children aged 2-7 years, language development was assessed using the TPLS.<sup>16</sup> TPLS is a standardized assessment tool administered individually by a trained professional, measuring both receptive and expressive language abilities in a structured setting. The scale provides information on both the content and form of language use.

## Statistical Analysis

Data were recorded into a database and analyzed using SPSS 26.0 software (SPSS Inc., Chicago, IL, USA). Descriptive statistics were used to summarize the data. The chi-square test was applied for comparisons between nominal variables, with Yates’ correction and the Fisher’s exact test used when necessary. For comparisons of numerical data between independent groups, the Kruskal-Wallis test was employed. A p-value of <0.05 was considered statistically significant, and all comparisons were conducted as two-tailed analyses.

## RESULTS

There was no statistically significant difference between the groups regarding gender distribution ( $p=0.612$ ) or mean age ( $p=0.823$ ). Males were predominant in all groups, with the highest proportion in the Afghan group (69.6%). Diagnoses by the child and adolescent psychiatry (CAP) department were made in 72.9% of cases, with delayed developmental milestones being the most common diagnosis (52.6%). The Syrian group had the highest proportion of children reported as having no special needs (34.7%). Additionally, 70.5% of cases had non-psychiatric diagnoses, with the Afghan group showing the highest rate (82.6%). The demographic characteristics of the patients included in the study and the percentages they received in the SNRC evaluation are presented in **Table 1**.

In the cognitive domain, the “no special needs” rates were highest in the Syrian (47.6%) and Iraqi (50.5%) groups, while the Afghan group had a higher “Special Condition Requirement Exists (SCRE)” rate (26.1%). In the psychiatric domain, the “no special needs” rates were consistently high across all groups (88.7%-91.3%), peaking in the Afghan group (91.3%). In the speech and language domain, the Syrian group had the highest “no special needs” rate (94.4%), while it was



**Table 1. Demographic characteristics of foreign nationals who applied to the health board for SNRC and classification of their rates according to their countries**

|                                                         | Syria (n=124) | Iraq (n=97) | Afghanistan (n=23) | Other countries (n=7) | $\chi^2$ | p     |
|---------------------------------------------------------|---------------|-------------|--------------------|-----------------------|----------|-------|
| <b>Sex, n (%)</b>                                       |               |             |                    |                       |          |       |
| Female                                                  | 52 (41.9)     | 39 (40.2)   | 7 (30.4)           | 4 (57.1)              | 1.892    | 0.612 |
| Male                                                    | 72 (58.1)     | 58 (59.8)   | 16 (69.6)          | 3 (42.9)              |          |       |
| <b>Age (months)<sup>a</sup></b>                         | 87.98±56.46   | 92.18±57.23 | 83.74±57.77        | 77.43±57.51           | KW 0.91  | 0.823 |
| <b>Diagnosis from the CAP department, n (%)</b>         |               |             |                    |                       |          |       |
| Delayed developmental milestones                        | 65 (52.4)     | 48 (49.5)   | 16 (69.6)          | 3 (42.9)              |          |       |
| Language-speech disorders                               | 3 (2.4)       | 9 (9.3)     | 2 (8.7)            | 2 (28.6)              |          |       |
| Autism spectrum disorder                                | 8 (6.5)       | 6 (6.2)     | -                  | 1 (14.3)              | 26.105   | 0.010 |
| Specific learning disorder                              | 5 (4.0)       | 13 (13.4)   | 2 (8.7)            | -                     |          |       |
| No diagnosis                                            | 43 (34.7)     | 21 (21.6)   | 3 (13.0)           | 1 (14.3)              |          |       |
| <b>Requirement ratio from the CAP department, n (%)</b> |               |             |                    |                       |          |       |
| No special needs                                        | 43 (34.7)     | 22 (22.7)   | 3 (13.0)           | 1 (14.3)              |          |       |
| SNE                                                     | 19 (15.3)     | 28 (28.9)   | 6 (26.1)           | 2 (28.6)              |          |       |
| Mild SNE                                                | 15 (12.1)     | 6 (6.2)     | 4 (17.4)           | 4 (42.9)              | 44.990   | 0.002 |
| Moderate SNE                                            | 18 (14.5)     | 15 (15.5)   | 1 (4.3)            | 1 (14.3)              |          |       |
| Severe SNE                                              | -             | 1 (1.0)     | 1 (4.3)            | -                     |          |       |
| Very severe SNE                                         | 1 (0.8)       | -           | -                  | -                     |          |       |
| SSNE                                                    | -             | -           | 2 (8.7)            | 1 (14.3)              |          |       |
| SCORE                                                   | 28 (22.6)     | 25 (25.8)   | 6 (26.1)           | 1 (14.3)              |          |       |
| <b>Diagnosis from other departments, n (%)</b>          |               |             |                    |                       |          |       |
| Present                                                 | 95 (76.6)     | 59 (60.8)   | 19 (82.6)          | 4 (57.1)              | 8.734    | 0.027 |
| Absent                                                  | 29 (23.4)     | 38 (39.2)   | 4 (17.4)           | 3 (42.9)              |          |       |
| <b>Requirement ratio from other departments, n (%)</b>  |               |             |                    |                       |          |       |
| No special needs                                        | 29 (23.4)     | 38 (39.2)   | 4 (17.4)           | 3 (42.9)              |          |       |
| SNE                                                     | 12 (9.7)      | 5 (5.2)     | 3 (13.0)           | -                     |          |       |
| Mild SNE                                                | 1 (0.8)       | -           | -                  | -                     | 21.747   | 0.029 |
| Moderate SNE                                            | 2 (1.6)       | 1 (1.0)     | -                  | -                     |          |       |
| Severe SNE                                              | 1 (0.8)       | 1 (1.0)     | -                  | 1 (14.3)              |          |       |
| SSNE                                                    | 9 (7.3)       | 3 (3.1)     | 1 (4.3)            | -                     |          |       |
| SCORE                                                   | 70 (56.5)     | 49 (50.5)   | 15 (65.2)          | 3 (42.9)              |          |       |

<sup>a</sup>: Mean±standard deviation, SNRC: Special Needs Report for Children, CAP: Child and adolescent psychiatry, SNE: Special Needs Exist, SSNE: Significant Special Needs Exist, SCORE: Special Condition Needs Exist

lower in the ‘other countries’ group (71.4%). The Afghan group showed elevated “Special Needs Exist (SNE)” and “SCORE” rates in the physical medicine and rehabilitation (PMR) domain (21.7% and 17.4%, respectively). Across other specialties, including neurology, genetics, and metabolism, “no special needs” rates were generally high, but the Afghan group displayed higher “SCORE” rates. The rates obtained from other specialties by country are presented in **Table 2**.

Language barriers were a prominent difficulty during CAP interviews, affecting 65.3% of all patients and as many as 78.3% within the Afghan group. A significant difference regarding the language barrier was also identified between the preschool and school-age groups. In the 0-6 age group, the rate at which the interview was negatively affected due to the language barrier was found to be 73.7% (n=84/114), whereas this rate was 58.4% (n=80/137) among children older than 6 years ( $p=0.011$ ;  $\chi^2=6.423$ ). Psychometric tests were functionally administered in only 15.9% of patients, while 24.7% could not be adapted due to language barriers, with the Afghan group having the highest rate of inability to request

tests (47.8%). The highest CAP follow-up recommendation rate was in the Afghan group (47.8%), yet the active follow-up rate was lowest in this group (4.3%). The most frequently used psychometric tests were the ADISI and WISC-R. The difficulties encountered during psychiatric evaluations and follow-up details by country are presented in **Table 3**.

## DISCUSSION

This study comprehensively examined the demographic characteristics of refugee and asylum-seeking children applying for the SNRC, the percentages they received in psychiatric and non-psychiatric specialties, and the challenges encountered during CAP evaluations. The findings revealed that a significant proportion of refugee children received ratings in both psychiatric and non-psychiatric domains, with these percentages showing statistically significant differences between groups. It was determined that more than half of the CAP interviews faced difficulties, with the primary source of these challenges being language barriers. Furthermore, language barriers and interview-related difficulties varied

**Table 2. Classification of the rates of psychiatry and non-psychiatry departments received by foreign nationals who applied to the health board for the SNRC according to their countries**

|                                      | Syria (n=124) | Iraq (n=97) | Afghanistan (n=23) | Other countries (n=7) |
|--------------------------------------|---------------|-------------|--------------------|-----------------------|
| <b>Cognitive domain, n (%)</b>       |               |             |                    |                       |
| No special needs                     | 59 (47.6)     | 49 (50.5)   | 7 (30.4)           | 3 (42.9)              |
| SNE                                  | 11 (8.9)      | 8 (8.2)     | 4 (17.4)           | 2 (28.6)              |
| Mild SNE                             | 14 (11.3)     | 6 (6.2)     | 4 (17.4)           | 1 (14.3)              |
| Moderate SNE                         | 18 (14.5)     | 15 (15.5)   | 1 (4.3)            | 1 (14.3)              |
| Severe SNE                           | -             | 1 (1.0)     | 1 (4.3)            | -                     |
| Very severe SNE                      | 1 (0.8)       | -           | -                  | -                     |
| SCORE                                | 21 (16.9)     | 18 (18.6)   | 6 (26.1)           | -                     |
| <b>CAP domain, n (%)</b>             |               |             |                    |                       |
| No special needs                     | 110 (88.7)    | 77 (79.4)   | 21 (91.3)          | 6 (85.7)              |
| SNE                                  | 5 (4.0)       | 12 (12.4)   | 2 (8.7)            | -                     |
| Mild SNE                             | 1 (0.8)       | -           | -                  | -                     |
| SSNE                                 | -             | 1 (1.0)     | -                  | -                     |
| SCORE                                | 8 (6.5)       | 7 (7.2)     | -                  | 1 (14.3)              |
| <b>Language-speech domain, n (%)</b> |               |             |                    |                       |
| No special needs                     | 117 (94.4)    | 84 (86.6)   | 20 (87.0)          | 5 (71.4)              |
| SNE                                  | 6 (4.8)       | 12 (12.4)   | 1 (4.3)            | 1 (14.3)              |
| SSNE                                 | 1 (0.8)       | 1 (1.0)     | 2 (8.7)            | 1 (14.3)              |
| <b>PTR domain, n (%)</b>             |               |             |                    |                       |
| No special needs                     | 75 (60.5)     | 63 (64.9)   | 11 (47.8)          | 6 (85.7)              |
| SNE                                  | 12 (9.7)      | 8 (8.2)     | 5 (21.7)           | -                     |
| Mild SNE                             | 2 (1.6)       | 2 (2.1)     | 1 (4.3)            | -                     |
| Moderate SNE                         | 4 (3.2)       | 4 (4.1)     | -                  | -                     |
| Severe SNE                           | 4 (3.2)       | 2 (2.1)     | 1 (4.3)            | 1 (14.3)              |
| SCORE                                | 27 (21.8)     | 18 (18.6)   | 5 (21.7)           | -                     |
| <b>Neurology domain, n (%)</b>       |               |             |                    |                       |
| No special needs                     | 114 (91.9)    | 86 (88.7)   | 18 (78.3)          | 7 (100)               |
| SNE                                  | 1 (0.8)       | -           | -                  | -                     |
| Moderate SNE                         | -             | 1 (1.0)     | -                  | -                     |
| SCORE                                | 9 (7.3)       | 10 (10.3)   | 5 (21.7)           | -                     |
| <b>Genetic domain, n (%)</b>         |               |             |                    |                       |
| No special needs                     | 105 (84.7)    | 88 (90.7)   | 20 (87.0)          | 6 (85.7)              |
| SSNE                                 | 1 (0.8)       | -           | -                  | -                     |
| SCORE                                | 18 (14.5)     | 9 (9.3)     | 3 (13.0)           | 1 (14.3)              |
| <b>Metabolism domain, n (%)</b>      |               |             |                    |                       |
| No special needs                     | 118 (95.2)    | 95 (97.9)   | 21 (91.3)          | 7 (100)               |
| SSNE                                 | 2 (1.6)       | 1 (1.0)     | -                  | -                     |
| SCORE                                | 4 (3.2)       | 1 (1.0)     | 2 (8.7)            | -                     |
| <b>Eye diseases domain, n (%)</b>    |               |             |                    |                       |
| No special needs                     | 109 (87.9)    | 91 (93.8)   | 19 (82.6)          | 7 (100)               |
| SNE                                  | 1 (0.8)       | -           | -                  | -                     |
| Mild SNE                             | -             | 1 (1.0)     | -                  | -                     |
| SSNE                                 | 8 (6.5)       | 1 (1.0)     | 4 (17.4)           | -                     |
| SCORE                                | 6 (4.8)       | 4 (4.1)     | -                  | -                     |

SNRC: Special Needs Report for Children, SNE: Special Needs Exist, SSNE: Significant Special Needs Exist, SCORE: Special Condition Needs Exist, CAP: Child and adolescent psychiatry, PTR: Physical therapy and rehabilitation, ENT: Ear nose and throat

significantly across refugee groups. These findings shed light on the key challenges encountered during health assessments of refugee children and highlight the distribution of these challenges across different refugee groups.

When examining the diagnostic distribution of refugee patients applying for the SNRC, the most common diagnosis was identified as “delayed developmental milestones” (52.6%). Similarly, in a study by Kayhan and Öztürk<sup>10</sup> that analyzed 307

|                                                                                                                                                                                                                                                                                                                      | Syria (n=124) | Iraq (n=97) | Afghanistan (n=23) | Other countries (n=7) | χ <sup>2</sup> | p       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------|--------------------|-----------------------|----------------|---------|
| Necessity of psychometric tests for diagnosis, n (%)                                                                                                                                                                                                                                                                 |               |             |                    |                       |                |         |
| Not necessary                                                                                                                                                                                                                                                                                                        | 75 (60.5)     | 57 (58.8)   | 16 (69.6)          | 2 (28.6)              | 3.642          | 0.295   |
| Necessary                                                                                                                                                                                                                                                                                                            | 49 (39.5)     | 40 (41.2)   | 7 (30.4)           | 5 (71.4)              |                |         |
| Psychometric tests used, n (%)                                                                                                                                                                                                                                                                                       |               |             |                    |                       |                |         |
| ADSI                                                                                                                                                                                                                                                                                                                 | 29 (58.0)     | 15 (37.5)   | 2 (28.6)           | 3 (60.0)              | 11.320         | 0.620   |
| WISC-R                                                                                                                                                                                                                                                                                                               | 18 (36.0)     | 21 (52.5)   | 5 (71.4)           | 2 (40.0)              |                |         |
| LD battery                                                                                                                                                                                                                                                                                                           | -             | 1 (2.5)     | -                  | -                     |                |         |
| Stanford Binet                                                                                                                                                                                                                                                                                                       | 1 (2.0)       | 1 (2.5)     | -                  | -                     |                |         |
| TELDT-TSALDT                                                                                                                                                                                                                                                                                                         | 2 (4.0)       | 2 (5.0)     | -                  | -                     |                |         |
| Use of psychometric test, n (%)                                                                                                                                                                                                                                                                                      |               |             |                    |                       |                |         |
| Requested and administered correctly                                                                                                                                                                                                                                                                                 | 13 (10.5)     | 23 (23.7)   | 3 (13.0)           | 1 (14.3)              | 17.361         | 0.027   |
| Requested but not complied                                                                                                                                                                                                                                                                                           | 36 (29.0)     | 17 (17.5)   | 5 (21.7)           | 4 (57.1)              |                |         |
| Not requested due to language barrier                                                                                                                                                                                                                                                                                | 40 (32.3)     | 24 (24.7)   | 11 (47.8)          | 1 (14.3)              |                |         |
| Not needed                                                                                                                                                                                                                                                                                                           | 35 (28.2)     | 33 (34.0)   | 4 (17.4)           | 1 (14.3)              |                |         |
| Language barrier, n (%)                                                                                                                                                                                                                                                                                              |               |             |                    |                       |                |         |
| No                                                                                                                                                                                                                                                                                                                   | 31 (25.0)     | 49 (50.5)   | 5 (21.7)           | 2 (28.6)              | 17.229         | < 0.001 |
| Yes                                                                                                                                                                                                                                                                                                                  | 93 (75.0)     | 48 (49.5)   | 18 (78.3)          | 5 (71.4)              |                |         |
| Recommendation for CAP follow-up, n (%)                                                                                                                                                                                                                                                                              |               |             |                    |                       |                |         |
| No                                                                                                                                                                                                                                                                                                                   | 79 (63.7)     | 64 (66.0)   | 12 (52.2)          | 2 (28.6)              | 4.907          | 0.176   |
| Yes                                                                                                                                                                                                                                                                                                                  | 45 (36.3)     | 33 (34.0)   | 11 (47.8)          | 5 (71.4)              |                |         |
| CAP follow-up, n (%)                                                                                                                                                                                                                                                                                                 |               |             |                    |                       |                |         |
| No                                                                                                                                                                                                                                                                                                                   | 117 (94.4)    | 83 (85.6)   | 22 (95.7)          | 6 (85.7)              | 5.881          | 0.089   |
| Yes                                                                                                                                                                                                                                                                                                                  | 7 (5.6)       | 14 (14.4)   | 1 (4.3)            | 1 (14.3)              |                |         |
| SNRC: Special Needs Report for Children, ADSI: Ankara Developmental Screening Inventory, WISC-R: Wechsler Intelligence Scale for Children-Revised, LD: Learning disability, TELDT-TSALDT: Turkish Early Language Development Test-Turkish School-Age Language Development Test, CAP: Child and adolescent psychiatry |               |             |                    |                       |                |         |

SNRC: Special Needs Report for Children, ADSI: Ankara Developmental Screening Inventory, WISC-R: Wechsler Intelligence Scale for Children-Revised, LD: Learning disability, TELDT-TSALDT: Turkish Early Language Development Test-Turkish School-Age Language Development Test, CAP: Child and adolescent psychiatry

SNRC applications, 52.7% of patients were reported to have been diagnosed with “delayed developmental milestones,” making it the most frequently observed diagnosis. Other studies investigating the diagnoses of SNRC patients have also shown that “delayed developmental milestones” and cognitive difficulties are among the most common findings.<sup>17-19</sup> In this study, when analyzing the distribution of cognitive diagnoses given to refugee children through SNRC reports, the most common diagnosis was found to be “Special Condition Needs Exists (SCNE)” at a rate of 17.9%. In contrast, other SNRC studies have reported “Special Needs Exist (SNE)” as the most frequently assigned diagnosis in the cognitive domain.<sup>10,17-19</sup> A review of the literature indicates that among children with intellectual disabilities, 75% are classified as mild, 10% as moderate, and 5% as severe.<sup>20</sup> Several factors may explain why “SCNE” is the most frequently observed cognitive diagnosis among refugee children in SNRC evaluations. First, children with mild intellectual disabilities may not be recognized by their families or teachers, leading to lower referral rates to healthcare services. Second, language barriers might cause clinicians to overlook or misinterpret cognitive difficulties during evaluations. Lastly, the inability to administer psychometric tests required for cognitive assessments due to language barriers is another potential contributing factor.

In this study, 65.3% of the cases experienced difficulties during psychiatric interviews due to language barriers. The reasons behind the significant impact of language barriers on the

evaluation and treatment processes of refugee children have been widely discussed in the literature. Language barriers not only hinder communication between healthcare professionals and families but also impede the proper assessment of children.<sup>21</sup> This issue creates substantial challenges in psychiatric evaluations, where effective communication is critical for obtaining accurate history and administering psychometric tests. In this study, 24.7% of the patients could not adapt to the required tests due to language barriers, while in 30.3% of the cases, clinicians could not request psychometric evaluations for the same reason. Similar findings have been reported in the literature, demonstrating that language barriers negatively affect diagnostic and treatment processes in migrant children.<sup>22</sup> For instance, Fazel et al.<sup>23</sup> highlighted that language barriers significantly restrict migrant families’ access to mental health services for their children, leading to delays in diagnosis. Likewise, Jefe-Bahloul et al.<sup>24</sup> emphasized that refugee children often fail to benefit adequately from appropriate assessment and intervention processes due to language difficulties.

In the Afghan group, the high prevalence of language barrier-related issues (78.3%) and the interview difficulty rate reaching 82.6% are particularly noteworthy. Furthermore, the inability to administer psychometric tests due to language barriers was significantly more pronounced in this group (47.8%). Additionally, the higher rate of recommendation for follow-up in child and adolescent psychiatry clinic (CAP) (47.8%)

suggests that Afghan children require more extensive support compared to other groups. The more frequent occurrence of language barriers in the Afghan group compared to other groups may stem from their distinct cultural and linguistic characteristics. Afghan families are likely to have less exposure to the official language of Türkiye, Turkish, compared to families from neighboring countries. This limited exposure may explain the higher prevalence of communication difficulties. Moreover, the lower socioeconomic status and educational level of Afghan families may further restrict their access to healthcare services. The high prevalence of language barriers observed in the Syrian and Iraqi groups also suggests that these children may experience insufficient integration into education and social systems. The challenges refugee children face in language acquisition significantly impact their educational experiences and access to healthcare services.

The literature frequently highlights the difficulties refugee children encounter in learning the host country's language and the adverse effects on healthcare access.<sup>25</sup> Similarly, studies conducted in Türkiye have shown that language barriers negatively affect refugee children's access to healthcare services, leading to delays in diagnosis and treatment processes.<sup>26</sup> Additionally, language barriers are recognized as one of the primary obstacles to healthcare access for refugee children, with communication difficulties potentially resulting in misdiagnoses.<sup>27</sup> UNICEF's 2022 report highlights that language barriers and limited access to support programs such as Turkish language courses, accelerated learning programs (ALP), and Conditional Cash Transfer for Education (CCTE) continue to hinder educational equity for refugee children in Türkiye. These barriers disproportionately affect multilingual children with special needs, particularly those from underrepresented linguistic groups such as Pashto- and Arabic-speaking communities, who may have limited access to these services. This intersection of linguistic and developmental vulnerability reflects a form of double disadvantage that requires integrated, equity-oriented responses within both education and health systems. As highlighted in the UNICEF 2022 report, ensuring equitable access to education for refugee children requires a multisectoral approach that addresses both structural and psychosocial barriers, with particular attention to language support and inclusion.<sup>27</sup>

These findings indicate that the challenges refugee children face in language acquisition can have far-reaching consequences not only at an individual level but also at a societal level.

Although the importance of using interpreters in interviews with refugees is frequently emphasized in the literature, the effectiveness of interpreter-assisted interviews remains limited.<sup>28</sup> This limitation arises particularly from the challenges of directly communicating with children and interpreters' lack of familiarity with psychiatric assessment criteria, which can reduce the functionality of certain psychometric assessment tools (e.g., WISC-R, Stanford-Binet, ADOS). The high rates of inability to administer psychometric tests observed in our study further support this observation. The language dependency of tools commonly used in psychiatric evaluations exacerbates the negative impact of language barriers on diagnostic processes. As a result, the reduced functionality of psychometric assessments may limit

the effectiveness of healthcare services and create gaps in the diagnostic process.

## Limitations

This study has certain limitations. Firstly, the fact that the study was conducted in a single center and designed based solely on a clinical sample may limit the generalizability of the findings. Secondly, given that this research was conducted through a retrospective file review, it should be acknowledged that some results may not have been fully reflected due to missing or incomplete data. Nevertheless, this study, which focuses on refugee cases applying to the SNRC health board, provides valuable insights that can guide approaches in child psychiatry practice for this specific group. Additionally, it is expected to contribute to the more effective planning and organization of healthcare services for refugee children.

## CONCLUSION

To the best of our knowledge, there are no previous studies in the literature specifically focusing on SNRC applications of refugee children. This study represents the first descriptive research addressing this topic. The findings highlight that language barriers are one of the most significant obstacles in the assessment and follow-up processes of refugee children. Language barriers pose serious limitations not only in establishing accurate diagnoses but also in planning effective treatment processes. These results emphasize the importance of developing policies aimed at providing language support for refugee children within healthcare services. Specifically, expanding translation services, enhancing cultural adaptation programs, and training healthcare professionals in this field are essential steps toward overcoming this issue. These findings also highlight that language barriers are not just a matter of communication but reflect deeper structural inequalities in access to health care. For refugee children with special needs, such barriers may contribute to delays in diagnosis, inadequate follow-up and overall disparities in mental health outcomes. Addressing these challenges is essential not only for improving clinical outcomes but also for promoting health equity and ensuring the fair and effective inclusion of refugee children in health care systems.

## ETHICAL DECLARATIONS

### Ethics Committee Approval

The study was carried out with the permission of the Ankara Etlik City Hospital Scientific Researches Evaluation and Ethics Committee (Date: 06.11.2024, Decision No: AEŞH-BADEK-2024-726).

### Informed Consent

Because the study was designed retrospectively, no written informed consent form was obtained from patients.

### Referee Evaluation Process

Externally peer-reviewed.

### Conflict of Interest Statement

The authors have no conflicts of interest to declare.

### Financial Disclosure

The authors declared that this study has received no financial support.

## Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

## REFERENCES

- Blackmore R, Gray KM, Boyle JA, et al. Systematic review and meta-analysis: the prevalence of mental illness in child and adolescent refugees and asylum seekers. *J Am Acad Child Adolesc Psychiatry*. 2020; 59(6):705-714. doi:10.1016/j.jaac.2019.11.011
- Syed Q, Mobayed T. Who is responsible for the health care of refugees. *Lancet*. 2017;389(10081):1793. doi:10.1016/S0140-6736(17)31272-8
- Anagnostopoulos DC, Heberbrand J, Eliez S, et al. European Society of Child and Adolescent Psychiatry: position statement on mental health of child and adolescent refugees. *Eur Child Adolesc Psychiatry*. 2016; 25(7):673-676. doi:10.1007/s00787-016-0885-1
- Kar N. Psychological impact of disasters on children: review of assessment and interventions. *World J Pediatr*. 2009;5(1):5-11. doi:10.1007/s12519-009-0001-x
- Schmitz F, Scherer EBS, Machado FR, et al. Methylphenidate induces lipid and protein damage in prefrontal cortex, but not in cerebellum, striatum and hippocampus of juvenile rats. *Metab Brain Dis*. 2012;27(4): 605-612. doi:10.1007/s11011-012-9310-5
- Enstitüsü Dİ, Başkanlığı Öİ. Türkiye özürölüler araştırması. Ankara: DİE; 2002.
- Kulaksızoğlu A. *Farklı Gelişen Çocuklar*. Epsilon Yayıncılık; 2003.
- Dünya Sağlık Örgütü. *Dünya Engellilik Raporu*. Ankara: Anıl Group Matbaa; 2011;1(2):3.
- Oades RD, Dauvermann MR, Schimmelmann BG, Schwarz MJ, Myint AM. Attention-deficit hyperactivity disorder (ADHD) and glial integrity: S100B, cytokines and kynurenine metabolism-effects of medication. *Behav Brain Funct*. 2010;6:1-14. doi:10.1186/1744-9081-6-29
- Kayhan M, Öztürk Y. Bir üniversite hastanesine çocuklar için özel gereksinim raporuna başvuran olguların klinik ve sosyodemografik özellikleri. *Osmangazi Tıp Dergisi*. 2020;42(2):240-248.
- Canlı D. Evaluation of systemic immune-inflammation index, systemic inflammatory response index and hematologic inflammatory parameters in generalized anxiety disorder: a controlled study. *Anat Curr Med J*. 2024;6(2):161-167. doi:10.5281/zenodo.10675597
- Savaşır I, Şahin N. *Wechsler Çocuklar için Zeka Ölçeği (WISC-R) Uygulama Kitapçığı*. Türk Psikologlar Derneği; 1995.
- Thorndike RL, Hagen EP, Sattler JM. The stanford-binet intelligence scale: guide for administering and scoring. Riverside Publishing Company; 1986.
- Savaşır I, Sezgin N, Erol N. *Ankara Gelişim Tarama Envanteri El Kitabı* (3. baskı). Türk Psikologlar Derneği; 2005.
- Güven S, Topbaş S. Erken dil gelişimi testi-üçüncü versiyonunun (test of early language development-) Türkçe'ye uyarlama, geçerlik ve güvenilirlik ön çalışması. *Int J Early Child Spec Educ*. 2014;6:2.
- Topbaş S, Özkan ET, Yavuz Alagöz H, et al. TPLS-özümlü dil bozukluğu Türkiye projesi: anadili Türkçe olan tekdilli ve ikidilli okulöncesi ve ilköğretim çağı (2:0-9:0 yaş) çocuklarında özümlü dil bozukluğunu ölçme ve değerlendirme çalışması. 2013.
- Terzioğlu MA, Büber A, Tanrıverdi Ç, Şenol H. Çocuklar için özel gereksinim raporu başvurusu olan olguların özel gereksinim düzeyleri. *Pamukkale Med J*. 2022;15(1):77-85. doi:10.31362/patd.1033507
- Güller B, Yaylacı F. Çocuklar için özel gereksinim raporuna geçiş sonrası bir yıllık sağlık kurulu verilerinin değerlendirilmesi. *Klin Psikiyatr Derg*. 2021;24(2):207-216. doi:10.5505/kpd.2021.03266
- Gümüş Ü, Gavcar EG, Saatçioğlu H, Kılıçaslan F. Şanlıurfa ilinde bir eğitim araştırma hastanesine çocuklar için özel gereksinim raporu (ÇÖZGER) amacıyla başvuran olguların sosyodemografik ve klinik özellikleri. *Harran Üniv Tıp Fak Derg*. 2024;21(2):298-305. doi:10.35440/hutfd.1422155
- Cameron SJ, Morrell CN, Bao C, Swaim AF, Rodriguez A, Lowenstein CJ. A novel anti-inflammatory effect for high density lipoprotein. *PLoS One*. 2015;10(12):e0144372. doi:10.1371/journal.pone.0144372
- Dumke L, Wilker S, Hecker T, Neuner F. Barriers to accessing mental health care for refugees and asylum seekers in high-income countries: a scoping review of reviews mapping demand and supply-side factors onto a conceptual framework. *Clin Psychol Rev*. 2024;102491. doi:10.1016/j.cpr.2024.102491
- Harris SM, Binder PE, Sandal GM. General practitioners' experiences of clinical consultations with refugees suffering from mental health problems. *Front Psychol*. 2020;11:412. doi:10.3389/fpsyg.2020.00412
- Fazel M, Reed RV, Panter-Brick C, Stein A. Mental health of displaced and refugee children resettled in high-income countries: risk and protective factors. *Lancet*. 2012;379(9812):266-282. doi:10.1016/S0140-6736(11)60051-2
- Jefee-Bahloul H, Barkil-Oteo A, Pless-Mulloli T, Fouad FM. Mental health in the Syrian crisis: beyond immediate relief. *Lancet*. 2015; 386(10003):1531. doi:10.1016/S0140-6736(15)00482-5
- Çeri V, Beşer C, Fiş NP, Arman A. İstanbul'daki mülteci çocuklara bakım vermek üzere özelleşmiş bir çocuk psikiyatri ünitesinden bulgular. *Klinik Psikiyatri*. 2018;21(2):113-121.
- Turhan S, Gürsoy S, Karakullukçu S. Türkiye'de göçmenlere sunulan sağlık hizmetleri için yürütülen iletişim çalışmaları. *Türk J Public Health*. 2021;19(3):286-294. doi:10.20518/tjph.872734
- García LV, Patró E, Barbero JD, et al. Lymphocyte-derived and lipoprotein-derived inflammatory ratios as biomarkers in bipolar disorder type I: characteristics, predictive values, and influence of current psychopharmacological treatments. *Psychoneuroendocrinology*. 2025;171:107209. doi:10.1016/j.psyneuen.2024.107209
- Fennig M, Denov M. Interpreters working in mental health settings with refugees: an interdisciplinary scoping review. *Am J Orthopsychiatry*. 2021;91(1):50-63. doi:10.1037/ort0000494