Research Square

Preprints are preliminary reports that have not undergone peer review.
They should not be considered conclusive, used to inform clinical practice,
or referenced by the media as validated information.

Profile Analysis Of Children Subjected To Protective Health Measures: Ankara (Türkiye) sample

ipen ilknur Ünlü Karataş

ipen.unlu@sbu.edu.tr

Health Sciences University

Ayşegül Efe

İshak Aydemir

Health Sciences University

Halim Toğa

Health Sciences University

Research Article

Keywords: Protective health measures, child maltreatment, child neglect, sexual abuse, psychiatric vulnerabilities, educational disruption

Posted Date: June 3rd, 2026

DOI: https://doi.org/10.21203/rs.3.rs-9518591/v1

License: This work is licensed under a Creative Commons Attribution 4.0 International License.
Read Full License

Additional Declarations: No competing interests reported.

Abstract

A total of 525 case files were examined and findings revealed that 31.4% of the children were of foreign nationality, 15% had repeated a school grade, and 34.9% had divorced or separated parents. Law enforcement authorities initiated 26.7% of the applications, and in addition to health measures, educational and counseling interventions were commonly implemented. Neglect (34.3%) and sexual abuse (13.1%) were the primary reasons for health protection measures, with significant gender differences: girls were predominantly victims of sexual abuse and had higher rates of suicide attempts, while boys were more frequently exposed to neglect and educational disruption.

Introduction

Child maltreatment, neglect, and juvenile delinquency remain significant public health and social welfare concerns in Türkiye, necessitating comprehensive legal and protective interventions. According to the Turkish Statistical Institute (TUIK) data for 2023, 537.583 children involving were reported to security units. Among these children, 242.875 classified as victims and 178.834 were involved due to being driven to delinquency (accused of committing acts defined as crimes under the law), 84.751 were contacted for information purposes, 15.716 were reported missing (later found after a missing person report), 11.179 were involved due to alleged misdemeanors, and 4.228 were brought in for other reasons. Additionally, among the 242.875 children who were reported as victims to security units, 89.7% were victims of crimes, and 10.2% were victims of incidents requiring follow-up. Among the 217.915 children reported as crime victims, 61.3% were victims of assault, 11.8% were victims of sexual crimes, 8.6% were victims of crimes against family order, 4.4% were victims of threats, and 13.9% were victims of other types of incidents. These alarming figures underscore the substantial burden of child victimization and neglect in Türkiye. Children exposed to maltreatment not only suffer immediate physical and psychological harm but also face heightened risks for long-term behavioral and mental health issues, such as depression, anxiety, suicidality, and cognitive impairments (Van Berkel et al., 2020; Strathearn et al., 2020; Herrenkohl et al., 2013).

In Türkiye, the procedures and principles regarding the protection of children in need of care or those driven to delinquency, as well as the safeguarding of their rights and well-being, are regulated by the Child Protection Law, enacted in 2005. Article 5 of this Law defines the protective and supportive measures to be taken to ensure that a child is primarily protected within their own family environment, including measures in the areas of counseling, education, care, health, and shelter. Within this framework: the counseling measure involves providing guidance to those responsible for the child's care on child-rearing practices; the education measure refers to directing the child toward educational or vocational opportunities; the care measure ensures the child's care through institutional or foster family services; and the shelter measure involves providing safe accommodation to children or pregnant women whose lives are at risk or who lack a place to stay.

Among these measures, the health measure aims to protect, treat, and rehabilitate the physical and mental health of the child. The treatment of substance use disorders, chronic illnesses, physical or psychological trauma, and neurodevelopmental disorders are carried out within this scope, under the responsibility of the Ministry of Health. In accordance with Article 8 of the Child Protection Law, decisions regarding protective and supportive measures are made by the juvenile court judge—either upon the application of relevant individuals or institutions or *ex officio*—with the child's best interests taken into account.

Health measures are implemented through medical social service units operating in hospitals affiliated with the Ministry of Health. The provincial health directorates determine the appropriate health institution or organization to carry out the measure and ensure that the child is referred accordingly. For children deemed suitable for outpatient treatment, medical interventions are conducted under the supervision of parents, guardians, or caregivers—or, in cases where a care or shelter measure has been issued, by the institution responsible for the execution of that measure (*Regulation on the Implementation of Protective and Supportive Measures under the Child Protection Law*, 2006).

Within the scope of the health measure, social workers in hospitals conduct interviews with the child and their family, ensure the realization of medical treatments, and provide support throughout the entire process. Utilizing a case management approach, social workers coordinate the child's referral to healthcare institutions, oversee treatment and follow-up procedures, monitor the progress of care, and ensure the child's safe return to their family or institutional care at the end of the process. Thus, the health measure functions not merely as a medical intervention but as a comprehensive social work practice aimed at reconstructing the child's biopsychosocial well-being.

Extant literature consistently demonstrates that children subject to neglect or abuse, and particularly those under legal protective measures, exhibit higher rates of psychiatric disorders, academic disruption, and social maladjustment compared to their peers (Woods et al., 2013; Güney, 2021). Risk factors including low parental education, unemployment of parents, parental mental and chronic physical health issues, problematic alcohol use, early parenthood, single parenting, family conflicts, being children from unwanted pregnancy, and low social support further compound children's vulnerability to psychosocial adversities (Wille et al., 2008; Clément et al., 2016). Children experienced higher odds of any agency-reported CM (Child Maltreatment) if their mothers did not have a high school education, had pregnancies at a young age, and were socially isolated postpartum. Similar risk factors were associated with substantiated CM. Female children had increased odds of both agency-reported and substantiated sexual abuse. Children born into large families had increased odds of agency-reported and substantiated neglect (Bull et al., 2024). Despite the growing magnitude of these issues, Türkiye currently lacks a fully integrated national database or coordinated system for tracking protective health measures and their outcomes. Recognizing this gap, national strategies such as the 2023–2028 Türkiye Child Rights Strategy and Action Plan have prioritized strengthening information systems for monitoring protective measures. However, empirical data regarding the profiles, risk factors, and service utilization patterns of children under health protection remains scarce.

Addressing this critical gap, the present study aims to retrospectively analyze the sociodemographic and clinical profiles of children subject to health protection orders at a tertiary hospital in Ankara, Türkiye. By evaluating key variables such as reasons for health measures, psychiatric history, educational status, family background, and service follow-up patterns, this study intends to contribute to the limited national literature and inform evidence-based policy development. Furthermore, given the sample size, the study represents one of the most comprehensive profile analyses conducted on this vulnerable group within Türkiye to date.

The main hypotheses of this study are that (1) neglect and sexual abuse constitute the primary reasons for health protection measures; (2) significant gender differences exist regarding reasons for protective intervention and psychiatric outcomes; (3) subtypes of child maltreatment may vary by gender, (4) nationality, family structure, and psychiatric history influence clinical follow-up adherence; and (5) foreign-born children have lower rates of regular access to health services than native-born children. To test these hypotheses, a mixed-method study was conducted based on a retrospective document analysis of the case files of children for whom health protection measures had been implemented.

Material And Methods

Participants and Procedure

This study was conducted based on the case follow-up files of children for who protective health protection measures were implemented at Ankara Etlik City Hospital, University of Health Sciences. The research was carried out in two stages. In the first stage, a retrospective document analysis was performed using the content analysis method. The research data for the content analysis were obtained by examining the children's health protection case files, including court decisions, social investigation reports, health protection follow-up forms, and hospital records containing treatment-related information. Accordingly, a document analysis was conducted on the available materials, and the data were then systematically analyzed using the content analysis technique.

Within the content analysis, the sociodemographic and clinical characteristics of the cases, the scope and reasons for the protective measures taken, the presence of additional interventions, and the psychiatric history, suicide attempts, and self-harming behaviors were examined. These documents served as the primary data source of the study, as they provided multidimensional information on the children's medical, psychosocial, and legal processes. All documents were systematically evaluated according to predetermined criteria, and the findings were recorded in detail. Following the content analysis, quantitative analyses were performed to identify and clarify the relationships between the emerging themes and variables.

A research protocol was established to guide the identification and analysis of the documents to be examined during the study. Accordingly, the following criteria were applied: the **social investigation reports** had to be complete, legible, and finalized; the documents had to be prepared **within the specified time frame**; they had to be **directly related to the research topic** (e.g., "family obligations," "child abuse");

in cases where **multiple reports existed for the same case**, only the **first version** was included in the analysis; and all **personal data** contained in the documents were removed to ensure **anonymity.** Documents that did not meet these criteria were excluded from the analysis.

Within the scope of the study, a total of **545 case files** belonging to children were reviewed; however, **20 files** were excluded from the study due to insufficient data. Consequently, data obtained from **525 files** were evaluated using both **qualitative** and **quantitative** analysis methods. In the quantitative phase of the research, the variables derived from the document analysis were statistically analyzed using the **SPSS 26.0** software.

Ethical Statement

This study was performed in line with the principles of the Declaration of Helsinki. All personal data contained in the documents examined in the study were anonymized, and no information that could reveal the identity of individuals was included. Prior to the use of the research data, written permission was obtained from the relevant institution, and the data were used solely for scientific purposes. Due to the retrospective nature of the study and the use of anonymized data, the requirement for informed consent was waived by the Scientific Research Ethics Evaluation Committee of Cumhuriyet University Social Sciences.

Ethical approval was obtained with the decision dated 23.09.2024 and numbered 16 by the Scientific Research Ethics Evaluation Committee of Cumhuriyet University Social Sciences (Ethic Protocol Number: E-99711239-050.04-47224). Additionally, institutional approval was also obtained from clinics where the patients were followed-up and the study was conducted, the Ankara Etlik City Hospital, University of Health Sciences,

Data Analysis

Data were analyzed using IBM SPSS (version 26.0 for Windows; SPSS Inc., Chicago, IL). Normality was assessed with the Kolmogorov-Smirnov test. Descriptive statistics, including frequencies [n (%)], percentages, means, and standard deviations (SD), were used to describe the sociodemographic and clinical characteristics. Subgroup comparisons based on *gender* and *nationality* were conducted using Pearson's chi-square (χ^2) or Fisher’s exact tests or Likelihood ratio (when expected frequencies were less than five per cell) for categorical variables, and Mann-Whitney U-tests (Z) or Kruskal-Wallis (KW) tests for continuous variables. Post hoc tests were applied for multiple group comparisons. P-values were derived from two-tailed tests with an alpha level of 0.05, with Bonferroni correction applied as needed.

Multivariate logistic regression analyses were employed to identify predictors of ***follow-up regularity*** (dependent variable). Univariate analyses of independent variables associated with the dependent variables *[**nationality** (χ^2: 22.932, df:4, p <0.001), **self-mutilation** (χ^2: 7.255, df:1, p = 0.007), **suicidal attempt** (χ^2: 2.327, df:1, p = 0.068), and **paternal literate** (χ^2: 4.013, df:1 , p = 0.045)]* were performed using

Pearson’s Chi-square or Fisher’s exact tests. Model fit was evaluated using Hosmer-Lemeshow goodness-of-fit statistics, with explanatory power assessed via Cox & Snell and Nagelkerke R^2 values.

Results

Descriptive Findings

Among the children under protective measures, it was identified as notable findings that: 31.4% were of foreign nationality (anyone who is not a citizen of Türkiye); 15% had repeated a school grade; 34.9% had separated parents; 26.7% of the applications were made by law enforcement; educational and counseling measures were implemented in addition to the health protection order; 45.1% did not regularly attend outpatient clinic follow-ups; 33.7% had a psychiatric history; and the health protection measures were predominantly implemented due to reasons such as neglect and sexual abuse. Descriptive findings of whole sample are summarized in Table 1.

Table 1. Sociodemographic and Clinical Data

Gender	**n (525)**	**%**
Female	257	49,0
Male	268	51,0
Nationality		
Turkish	360	68,6
Syrian	59	11,2
Iraqi	85	16,2
Afghan	20	3,8
Uzbek	1	0,2
Parent marital status		
Married	342	65,1
Divorced/separated	183	34,9
Care status of children		
Live with mother	122	23,2
Live with father	26	5,0
Live with both parents	61,7	324
Live with relatives	29	5,5
Fostered care	24	4,6
Education Status		
Preschooler	120	22,9
Primary School	100	19,0
Secondary School	125	23,8
High School	100	19,0
Not continued ed.	80	15,2
Special education need		
Yes	65	12,4
No	460	87,6
Failing the grade		

Yes	79	15,0
No	446	85,0
Noticer of health measure		
By school	36	6,9
By JLEU	140	26,7
By neighbors/social environment	81	15,4
By hospital	86	16,4
By family	129	24,6
By PDSS	53	10,1
None	223	42,5
Reason for health measure		
Neglect	180	34,3
Others	119	22,7
Sexual abuse	69	13,1
Psychiatric problem/treatment	60	11,4
Care neglect	36	6,9
Health follow-up	17	3,2
Peer bullying	9	1,7
Types of measures other than health measure		
Consultancy measure	135	25,7
Maintenance measure	12	2,3
Education measure	119	22,7
Consultancy + Education m.	35	6,7
Education + Maintenance m.	1	0,2
Clinical follow-up after health measure		
Regular	288	54,9
Irregular	229	43,6
Never	8	1,5
Psychiatric history		

Existed	177	33,7
Not existed	348	66,3
Medication use		
Existed	192	36,6
Not existed	333	63,4

The numbers in parenthesis (%) figures frequencies of variables. N indicates number of the participants.

Note: JLEU: Judicial and law enforcement units, PDSS: Provincial directorate of family and social services

Comparison by Gender

Roughly in general terms, gender groups did not differ in terms of sociodemographic characteristics, *such as distribution of nationality (p = 0.48), care status (p = 0.104), education continuity (p = 0.35), and failing the grade (p = 0.85),* as well as the characteristics related to parents, *including marital status (p = 0.174), maternal (p= 0.67) or paternal (p=0.96) literate, psychiatric diagnosis of mothers (p = 0.854) or fathers (p = 0.266) and medical/physical diagnosis of mothers (p = 0.059) or fathers (p = 0.844).* However, gender groups differed in age distribution with a weak effect size (Z: 38575, p = 0.017). The comparison of clinical characteristics by gender is summarized in Table 2.

Table 2. Comparison of clinical characteristics by gender

Characteristics	Males	Females	χ^2	df	p*
n(%)	**257 (49)**	**268 (51)**			
Noticer of health measure	63 (24.7)	65 (24.4)	1.085	5	0.955
By family	41 (16.1)	40 (15)			
By neighbours/social env.	15 (5.9)	20 (7.5)			
By school	41 (16.1)	45 (16.9)			
By hospital	71 (27.8)	68 (25.6)			
By JLEU	24 (9.4)	28 (10.5)			
By PDSS					
Types of other measures	112 (43.8)	109 (41)	14.785	5	**0.011**
None	54 (21.1)	80 (30.1)			
Consultancy measure	9 (3.5)	3 (1.1)			
Maintenance measure	68 (26.6)	51 (19.2)			
Education measure	12 (4.7)	23 (8.6)			
Consultancy + Education m.	1 (0.4)	0 (0)			
Education + Maintanence m.					
Reason for health measure	14 (5.5)	53 (20.1)	29.353	7	**<0.001**
Sexual abuse	16 (6.3)	19 (7.2)			
Physical abuse	16 (6.3)	20 (7.6)			
Care neglect	30 (11.8)	30 (11.4)			
Psychiatric problem/treatment	4 (1.6)	3 (1.1)			
Peer bullying	94 (36.9)	85 (32.2)			
Neglect	9 (3.5)	7 (2.7)			
Health follow-up	72 (28.2)	47 (17.8)			
Others					
Clinical follow-up after health measure	139 (54.1)	149 (55.6)	0.621	2	0.733
Regular	115 (44.7)	114 (42.5)			
Irregular	3 (1.2)	5 (1.9)			
Never					
Which polyclinic to follow-up?	150 (58.4)	167 (62.3)	1.044	2	0.593

Child psychiatry	74 (28.8)	67 (25)			
Pediatric	33 (12.8)	34 (12.7)			
Others					
Psychiatric history (existed)	80 (31.3)	96 (36)	1.296	1	0.255
Psychiatric diagnosis	36 (27.3)	21 (14.3)	27.912	9	**<0.001***
ADHD	12 (9.1)	4 (2.7)			
ASD	7 (5.3)	6 (4.1)			
SLD	10 (7.6)	18 (12.2)			
PTSD	21 (15.9)	20 (13.6)			
GDI/MR	0 (0)	6 (4.1)			
BMS	17 (12.9)	11 (7.5)			
CD	2 (1.5)	8 (5.4)			
GAD	1 (0.4)	1 (0.7)			
BAD	24 (18.2)	52 (35.4)			
MDD					
Medical diagnosis	36 (35.6)	21 (28.4)	1.721	4	0.787
DM	7 (6.9)	5 (6.8)			
Epilepsy	8 (7.9)	5 (6.8)			
Cardiac problems	4 (4)	5 (6.8)			
Renal problems	46 (45.5)	38 (51.4)			
General medical problems					
Drug use (existed)	92 (35.9)	99 (37.1)	0.073	1	0.786
Special education need (yes)	42 (16.3)	23 (8.6)	7.283	1	**0.007**
Suicidal attempt (existed)	11 (4.3)	30 (11.2)	8.710	1	**0.003**
Self-mutilation (existed)	43 (16.8)	43 (16.1)	0.046	1	0.831
Methods of self-mutilation/suicide	11 (4.3)	14 (5.2)	9.228	5	0.08*
Wounding with a cutting tool	8 (3.1)	19 (7.1)			
Drug-abuse	2 (0.8)	2 (0.7)			
Burning	16 (6.3)	7 (2.6)			
Hitting	1 (0.4)	0 (0)			

Jumping from high altitude

Pearson chi-square test, p<0.05 is statistically acceptable, demonstrated in bolds. **likelihood ratio (df) and p values were demonstrated where the ratio of cell'counting less than 5 was more than 20%.*

The numbers in parenthesis (%) figures frequencies of variables. N indicates number of the participants.

Note: ADHD: Attention deficit/hyperactivity disorder, ASD: Autism spectrum disorders, SLD: Specific learning disabilities, PTSD: Post-traumatic stress disorder, GDI/MR: Global developmental impairment or mental retardation, BMS: Border mental status, CD: Conduct disorder, GAD: General anxiety disorder, BAD: Bipolar affective disorder, MDD: Major depressive disorder, DM: Diabetes mellitus, JLEU: Judicial and law enforcement units, PDSS: Provincial directorate of family and social services

Comparison by Nationality

The age distribution differed across groups by nationality (KW: 10.719; df: 3; p = 0.013). As shown in Table 3, various sociodemographic and family-related characteristics differed across groups. Significant differences were observed in school dropout rates, special education needs, parents' marital status, parents' educational levels, and parents' psychiatric conditions. In contrast, no statistically significant differences were found in gender distribution, grade repetition, parents' medical conditions, or caregiving status. These findings suggest that ethnicity may be associated with differences in social and family vulnerability factors. Sociodemographic and clinical characteristics are summarized in Table 3.

Table 3. Comparison of sociodemographic characteristics by nationality

Characteristics n(%)	Turkish 361 (68.8)	Syrian 59 (11.2)	Iraqi 84 (16)	Afghan 20 (3.8)	χ^2	df	p*
Gender (male)	171 (47.4)	28 (47.5)	46 (54.8)	12 (60)	2.525	3	0.471
Education status (discontinued)	36 (10)	11 (18.6)	22 (26.2)	11 (55)	40.499	3	**<0.001**
Special education need (yes)	57 (15.8)	2 (3.4)	4 (4.8)	2 (10)	12.842	3	**0.005**
Failing the grade (yes)	59 (16.4)	9 (15.3)	11 (13.1)	0 (0)	4.287	3	0.232
Parent marital status (married)	218 (60.4)	42 (71.2)	66 (78.6)	16 (80)	13.177	3	**0.004**
Parents educational status	25 (7.2)	23 (39.7)	22 (26.2)	8 (40)	60.881	3	**<0.001**
Paternal (illiterate)	38 (10)	29 (50)	32 (38.1)	11 (55)	78.45	3	**<0.001**
Maternal (illiterate)							
Parents psychiatric status	37 (10.8)	5 (.6)	1 (1.2)	1 (5)	8.143	3	**0.043**
Paternal (problem exist)	63 (18.2)	6 (10.3)	5 (6)	3 (15)	9.019	3	**0.029**
Maternal (problem exist)							
Parents medical status	79 (23.2)	9 (15.5)	17 (20.2)	4 (20)	1.915	3	0.590
Paternal (problem exist)	108 (30.7)	12 (21.1)	19 (22.6)	5 (25)	3.909	3	0.271
Maternal (problem exist)							
Care status	326 (90.3)	48 (81.4)	81 (96.4)	16 (80)	12.079	6	0.820
Live with parents	19 (5.3)	5 (8.5)	2 (2.4)	3 (15)			
Live with relatives	16b84.4)	6 (10.2)	1 (1.2)	1 (5)			
Fostered care							
Noticer of health measure	88 (24.5)	13 (22.4)	25 (30.1)	2 (10)	28.784	15	**0.017***
By family	51 (14.2)	18 (31)	7 (8.4)	5 (25)			
By neighbors/social env.	24 (6.7)	2 (3.4)	8 (9.6)	1 (5)			
	61 (17)			6 (30)			

By school	98 (27.3)	9 (15.5)	10 (12)	5 (25)			
By hospital	37 (10.3)	8 (13.8)	28 (33.7)	1 (5)			
By JLEU		8 (13.8)					
By PDSS			5 (6)				
Types of other measures	138 (38.3)	31 (53.4)	42 (50.6)	10 (50)	100.574	15	**<0.001***
None	124 (34.4)	6 (10.3)	1 (1.2)	3 (15)			
Consultancy measure	7 (1.9)	4 (6.9)	0 (0)	1 (5)			
Maintenance measure	60 (16.7)	14 (24.1)	39 (47)	5 (25)			
Education measure	31 (8.6)	2 (3.4)	1 (1.2)	1 (5)			
Consultancy + Education m.	0 (0)	1 (1.7)	0 (0)	0 (0)			
Education + Maintenance m.							
Reason for health measure	63 (17.3)	3 (5.2)	0 (0)	1 (5)	133.318	21	**<0.001***
Sexual abuse	30 (8.4)	5 (8.6)	0 (0)	0 (0)			
Physical abuse	22 (6.2)	8 (13.8)	1 (1.2)	5 (25)			
Care neglect	56 (15.7)	0 (0)	2 (2.4)	2 (10)			
Psychiatric problem/treatment	5 (1.4)	1 (1.7)	1 (1.2)	0 (0)			
Peer bullying	121 (33.9)	20 (34.5)	35 (42.2)	2 (10)			
Neglect	6 (1.7)	3 (5.2)	6 (7.2)	1 (5)			
Health follow-up	54 (15.1)	18 (31)	38 (45.8)	9 (45)			
Others							

Pearson chi-square test with Bonferroni adjustment, p<0.05 is statistically acceptable, demonstrated in bolds. **likelihood ratio (df) and p values were demonstrated where the ratio of cell'counting less than 5 was more than 20%.*

The numbers in parenthesis (%) figures frequencies of variables. N indicates number of the participants.

Note: JLEU: Judicial and law enforcement units, PDSS: Provincial directorate of family and social services

Following the comparison of sociodemographic characteristics, the children's clinical characteristics were analyzed in greater detail according to their nationality. Significant differences were observed

between the groups in terms of clinical follow-up models, type of outpatient clinic, psychiatric history, psychiatric diagnoses, medical conditions, medication use, and self-harm behaviors. These findings are presented in Table 4.

Table 4. Comparison of clinical characteristics by nationality

Characteristics n(%)	Turkish 361 (68.8)	Syrian 59 (11.2)	Iraqi 84 (16)	Afghan 20 (3.8)	χ^2	df	p*
Clinical follow-up after health measure	196 (54.3)	19 (32.2)	56 (66.7)	16 (80)	23.375	6	**<0.001**
Regular	160 (44.3)	38 (64.4)	27 (32.1)	4 (20)			
Irregular	5 (1.4)	2 (3.4)	1 (1.2)	0 (0)			
Never							
Which polyclinic to follow-up?	269 (74.5)	24 (40.7)	13 (15.5)	10 (50)	113.421	6	**<0.001**
Child psychiatry	62 (17.2)	22 (37.3)	51 (60.7)	6 (30)			
Pediatric	30 (8.3)	13 (22)	20 (23.8)	4 (20)			
Others							
Psychiatric history (existed)	157 (43.7)	8 (13.6)	5 (6)	6 (30)	55.939	3	**<0.001**
Psychiatric diagnosis	52 (22.1)	1 (5.6)	3 (15.8)	1 (14.3)	44.708	27	**0.017***
ADHD	13 (5.5)	0 (0)	3 (15.8)	0 (0)			
ASD	10 (4.3)	2 (11.1)	1 (5.3)	0 (0)			
SLD	23 (9.8)	1 (5.6)	0 (0)	4 (57.1)			
PTSD	28 (11.9)	8 (44.4)	5 (26.3)	0 (0)			
GDI/MR	8 (3.4)	0 (0)	0 (0)	1 (14.3)			
BMS	26 (11.1)	1 (5.6)	1 (5.3)	0 (0)			
CD	10 (4.3)	0 (0)	0 (0)	0 (0)			
GAD	1 (0.4)	0 (0)	0 (0)	0 (0)			
BAD	64 (27.2)	5 (27.8)	6 (31.6)	1 (14.3)			
MDD							
Medical diagnosis	52 (51)	1 (3.6)	3 (9.4)	1 (8.3)	25.970	12	**<0.001***
DM	9 (8.8)	0 (0)	3 (9.4)	0 (0)			
Epilepsy	3 (2.9)	5 (17.9)	3 (9.4)	2 (16.7)			
Cardiac problems	3 (2.9)	2 (7.1)	3 (9.4)	1 (8.3)			
Renal problems							

General medical problems	35 (34.3)	20 (71.4)	20 (62.5)	8 (66.7)			
Drug use (existed)	146 (40.7)	19 (32.2)	16 (19)	10 (50)	15.755	3	**0.001**
Suicidal attempt (existed)	37 (10.3)	1 (1.7)	1 (1.2)	2 (10)	15.110	3	**0.002**
Self-mutilation (existed)	79 (22)	2 (3.4)	4 (4.8)	1 (5)	25.610	3	**<0.001**
Methods of self-mutilation/ suicide	23 (6.4)	1 (1.7)	1 (1.2)	0 (0)	35.476	15	**0.002***
	25 (7)	0 (0)	1 (1.2)	1 (5)			
Wounding with a cutting tool	4 (1.1)	0 (0)	0 (0)	0 (0)			
Drug-abuse	21 (5.9)	1 (1.7)	1 (1.2)	0 (0)			
Burning	1 (0.3)	0 (0)	0 (0)	0 (0)			
Hitting							
Jumping from high altitude							

Pearson chi-square test witk Bonferroni adjustment,p<0.05 is statistically acceptable, demonstrated in bolds. **likelihood ratio (df) and p values were demonstrated where the ratio of cell'counting less than 5 was more than 20%.*

The numbers in parenthesis (%) figures frequencies of variables. N indicates number of the participants.

Note: ADHD: Attention deficit/hyperactivity disorder, ASD: Autism spectrum disorders, SLD: Specific learning disabilities, PTSD: Post-traumatic stress disorder, GDI/MR: Global developmental impairment or mental retardation, BMS: Border mental status, CD: Conduct disorder, GAD: General anxiety disorder, BAD: Bipolar affective disorder, MDD: Major depressive disorder, DM: Diabetes mellitus.

Regression Analysis of Follow-up Regularity Predictors

According to comparison of the sociodemographic and clinical characteristics by follow-up regularity (regular or irregular), the participants with regular follow-up did not differ from the opponents with irregular follow-up in terms of parental characteristics (marital status, maternal literate, psychiatric or medical disorders), gender distribution (p = 0.728), care status (p =0.107), failing in grade (p = 0.503), education continuity (p = 0.343), special education need (p = 0.533), noticer of health measure (p = 0.096), types of measure decisions other than health measure (p = 0.095), reason of health measure (p = 0.936), psychiatric history (p = 0.566), types of psychiatric (p = 0.684) or medical diagnoses (p = 0.65), drug-use (p = 0.288), or types of clinic primarily conducting follow-up (p = 0.899).

Univariate analyses of independent variables associated with the dependent variables *[**nationality** (χ^2: 22.932, df:4, p <0.001), **paternal literate** (χ^2: 4.013, df:1 , p = 0.045), **self-mutilation** (χ^2: 7.255, df:1, p =*

*0.007), and **suicidal attempt** (χ²: 2.327, df:1, p = 0.068)]* were conducted. When the independent variables predicting the follow-up regularity were studied with logistic regression analysis (Table 5), the significance level of the model in enter mode was statistically meaningful (χ²: 36.9, df:7, p<0.001) with a quite low predictability (Cox & Snell R2: 0.07, Nagelkerke R²: 0.094) and an appropriate model fit (Hosmer & Lemeshow Test: p = 0.786).

Table 5. Regression analysis of follow-up regularity predictors

	B	SE	df	p	Exp(B)	95% CI of Exp(B)		Cox&Snell R2
						Lower	Upper	Nagelkerke R2
MODEL			7	<0.001				0.070
(enter mode)								0.094
Nationality	0.829	0.316	4	<0.001	2.290	1.233	4.235	
Turkish	-0.545	0.270	1	0.009	0.580	0.342	0.984	
Syrian	-1.376	0.594	1	0.043	0.253	0.079	0.809	
Iraqi	0.633	0.279	1	0.021	1.882	1.090	3.250	
Paternal literate			1	0.023				
Self-mutilation	1.202	0.854	1	0.159	3.328	0.624	17.756	
Suicidal attempt	0.245	0.483	1	0.612	1.278	0.495	3.295	

Discussion

This study offers a substantial contribution to the understanding of children under protective health measures in Türkiye, as defined by Law No. 5395 on Child Protection. Drawing on a large, retrospective dataset of 525 case files—one of the most extensive analyses of its kind in the Turkish context (children under protective health measures)—our findings provide critical insight into the clinical, sociodemographic, and psychosocial characteristics of this vulnerable population.

Neglect and Sexual Abuse as Primary Drivers

Consistent with the hypothesis and previous studies (Karadağ & Çavdar Kolbüken, 2022; Güller & Yaylacı, 2022), **neglect (34.3%) and sexual abuse (13.1%)**emerged as the primary reasons for the imposition of health protection measures. The high psychiatric diagnostic rate among these children (33.7%), especially among those exposed to neglect and abuse, reaffirms the lasting neurodevelopmental and psychological impact of early trauma (Strathearn et al., 2020; Herrenkohl et al., 2013). In particular, sexual abuse was more prevalent among girls, while neglect was more commonly associated with boys,

revealing gendered pathways into institutional care. These results validate earlier work (Aberle et al., 2007; Jaffee & Christian, 2014) and emphasize the necessity of gender-specific assessment and intervention protocols.

Clinical Impairments and Psychiatric Vulnerability

A striking finding was the **high prevalence of psychiatric disorders**, including attention deficit-hyperactivity disorder (ADHD), post-traumatic stress disorder (PTSD), and conduct disorders—diagnoses consistently linked to childhood trauma and maltreatment (Erol et al., 2008; Kul et al., 2023). Notably, **girls exhibited significantly higher rates of suicide attempts,** often through medication overdose, whereas boys were more likely to engage in high-risk physical methods such as jumping from heights. This aligns with global patterns of gender differences in suicidal behavior (Evans et al., 2005) and calls for trauma-informed psychiatric care that is both developmentally and gender-sensitive.

Educational Disruption and Special Needs

Educational failure and disengagement were prominent, with **15% of children having repeated a grade,** and many demonstrating inconsistent school attendance. Prior works (Nasıroğlu, 2017; Cook & Kang, 2016) have shown that school absenteeism and dropout are significant risk factors for future psychosocial maladjustment. Boys were more likely to be prescribed **educational support measures,** possibly due to greater academic discontinuity and behavioral issues. In contrast, girls were more frequently provided with **counseling interventions**, underlining the importance of tailoring services to individual developmental and gendered needs. These findings underscore the necessity of **school-based interventions**, including social services, guidance counseling, and targeted programs aimed at improving educational continuity and reducing school disengagement (Cook & Kang, 2016; Karadağ & Çavdar Kolbüken, 2022).

Moreover, children with special education needs were disproportionately male and Turkish, while **foreign-national children (Afghan, Iraqi, Syrian)** were more frequently subject to **educational interventions** due to lack of school attendance. These findings raise concerns about **systemic educational exclusion** among migrant children and underline the need for inclusive, culturally competent educational and healthcare services.

Nationality and Service Access Disparities

Children of **Syrian origin** had significantly lower rates of psychiatric diagnoses and treatment adherence, despite high exposure to risk factors. This may reflect **barriers to accessing mental health services**, including language, cultural stigma, and institutional bias. Meanwhile, Turkish children had the highest prevalence of psychiatric diagnoses and service use. This discrepancy supports prior evidence of

disparities in mental healthcare utilization among refugee and minority children (Horwitz et al., 2012; Wille et al., 2008).

The **logistic regression model**identified**nationality, paternal literacy, and self-harming behavior** as predictors of outpatient follow-up adherence, reinforcing the role of structural determinants in mental health service engagement. Given the limited explanatory power of the model (Nagelkerke $R^2 = 0.094$), further qualitative investigation is warranted to understand the nuanced barriers to sustained care.

Policy and Clinical Implications

These findings underscore the urgent need for a **multisectoral response** to address the intertwined mental, educational, and familial vulnerabilities of children under protective health orders. Key recommendations include: Establishing **early screening systems** for trauma and neglect in schools and pediatric settings; expanding **multidisciplinary service teams**, including child psychiatrists, social workers, and educators; developing **specialized intervention tracks** for high-risk subgroups (e.g., migrants, children with intellectual disabilities); strengthening **caregiver engagement** through structured psychoeducation and family therapy, given the pivotal role of parental literacy and involvement in care continuity; accelerating the implementation of **national child protection databases** to improve coordination and tracking of protective interventions (Türkiye Children's Rights Strategy Report, 2023-2028).

This study provides robust empirical support for the hypothesis that neglect and abuse—especially among children from disadvantaged or displaced backgrounds—are closely associated with significant psychiatric morbidity, educational disruption, and poor adherence to care. The findings advocate for early, integrated, and family-centered intervention strategies to ensure the comprehensive protection and psychosocial recovery of these children. Future longitudinal and mixed-methods studies should examine the long-term developmental trajectories of children under protective orders and evaluate the efficacy of current protective interventions.

Conclusion

The results show that there is a significant healthcare problem in Türkiye, since child maltreatment is prevalent, but parents are not generally aware of its extent (Sofuoğlu, Sarıyer, Ataman, 2016) and our results indicate that a significant proportion of the children subject to health protection orders are victims of neglect and abuse, which lead to mental health issues, self-harming behaviors, suicide attempts, use of medication, irregular clinical follow-ups, and the need for special education. Many also experience school absenteeism and come from unhealthy family structures. The fact that sexual abuse and neglect are the most common reasons for initiating health protection measures highlights the importance of developing early intervention programs to protect children from all forms of neglect and abuse.Neglect and abuse can have devastating and long-term effects on children and are risk factors for numerous psychiatric disorders. Therefore, the regular monitoring and treatment of children

under health protection measures is crucial. It is also important that their families are regularly followed up, engaged in discussions, and supported throughout the process to maintain the well-being of the children.

The findings highlight the urgent need for gender-sensitive, culturally competent, and family-centered intervention strategies to improve the protection and long-term outcomes of at-risk children. **Conducting psychosocial assessments and evaluations involving both the child and the family ensures the proper implementation of health protection decisions. In such cases, collaborative work with social services units should be undertaken to take preventive measures for safeguarding the mental health of the child. The insufficient number of professionals at the hospital where the study was conducted and the increasing number of health precaution cases make it difficult to carry out professional training. Establishing health precaution units in hospitals that monitor health precaution decisions and increasing the number of professionals will contribute to the more effective implementation of health precaution decisions, which play a crucial role in the child protection system.**

These results offer important recommendations for practitioners working in the Turkish child protection system and will also provide important information for all practitioners working in the international child protection field to evaluate case studies. Furthermore, they will facilitate interventions in cases with similar profiles. In this respect, the study contributes to the development of more effective, sustainable, and holistic child protection strategies at both the local and global levels.

Limitations of the Study

As this study was a retrospective research conducted through document analysis, it includes certain limitations. The data were obtained solely from the case files of children for whom health protection measures were implemented at the University of Health Sciences Ankara Etlik City Hospital; therefore, the generalizability of the findings is limited. In addition, missing information and inconsistencies in the records may have partially affected data integrity. Another limitation of the study is the inability to conduct direct observations or interviews due to its retrospective design**.**

Declarations

Ethics approval and consent to participate

This study was performed in line with the principles of the Declaration of Helsinki. Ethical approval was obtained with the decision dated 23.09.2024 and numbered 16 by the Scientific Research Ethics Evaluation Committee of Cumhuriyet University Social Sciences (Ethic Protocol Number: E-99711239-050.04-47224). Additionally, institutional approval was also obtained from clinics where the patients were followed-up and the study was conducted, the Ankara Etlik City Hospital, University of Health Sciences. Due to the retrospective nature of the study and the use of anonymized data, the requirement for informed consent was waived by the Scientific Research Ethics Evaluation Committee of Cumhuriyet University Social Sciences. All personal data contained in the documents examined in the study were

anonymized, and no information that could reveal the identity of individuals was included. Prior to the use of the research data, written permission was obtained from the relevant institution, and the data were used solely for scientific purposes.

Consent for publication

Not applicable.

Availability of data and materials

The data that support the findings of this study are available on request from the corresponding author.

Competing interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Funding

This study did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Authors' contributions

All authors contributed equally to the conception and design of the study, data collection, analysis, interpretation of the results, and writing of the manuscript. All authors have read and approved the final version of the manuscript.

Acknowledgements

None.

References

1. Aberle N, Ratković-Blazević V, Mitrović-Dittrich D, Coha R, Stoić A, Bublić J. Emotional and physical abuse in family: Survey among high school adolescents. Croatian Med J. 2007;48(2):240–8.
2. Bull C, Trott M, Najman JM, Reid N, Kisely S. Risk factors associated with child maltreatment in the second generation of a prospective longitudinal Australian birth cohort: A MUSP study. Social Sci Med. 2024;362:117402. 10.1016/j.socscimed.2024.117402.
3. Clément MÈ, Bérubé A, Chamberland C. Prevalence and risk factors of child neglect in the general population. Public Health. 2016;138:86–92.
4. Cook PJ, Kang S. Birthdays, schooling, and crime: Regression-discontinuity analysis of school performance, delinquency, dropout, and crime initiation. Am Economic Journal: Appl Econ. 2016;8(1):33–57.

5. Çocuk Koruma Kanunu. (2005) *5395 sayılı Çocuk Koruma Kanunu*. Resmî Gazete, 15 Temmuz 2005, Sayı: 25876.
6. Erol N, Şimşek Z, Munir KM. Çocuk ve ergen ruh sağlığı epidemiyolojisi, in Çetin FÇ. In: Pehlivantürk B, Ünal F, Uslu R, İşeri E, Türkbay T, Coşkun A, Miral S, Motavallı N, editors. Çocuk ve Ergen Psikiyatrisi Temel Kitabı. Ankara: Hekimler Yayın Birliği; 2008. pp. 782–800.
7. Evans E, Hawton K, Rodham K, Deeks J. The prevalence of suicidal phenomena in adolescents: A systematic review of population-based studies. Suicide Life-Threatening Behav. 2005;35(3):239–50.
8. Güller B, Yaylacı F. Socio-demographic and clinical characteristics of children and adolescents followed for court-mandated treatment. Turkish J Child Adolesc Mental Health. 2022;29(2):67–74. 10.4274/tjcamh.galenos.2021.38257.
9. Güney SA, Bağ Ö. Features of childhood sexual abuse during the initiation period of lockdown due to COVID-19 pandemic in Turkey. Turkish J Child Adolesc Mental Health. 2021;28(1):27–34. 10.4274/tjcamh.galenos.2021.06025.
10. Herrenkohl TI, Hong S, Klika JB, Herrenkohl RC, Russo MJ. Developmental impacts of child abuse and neglect related to adult mental health, substance use, and physical health. J Family Violence. 2013;28(2):191–9.
11. Horwitz SM, Hurlburt MS, Goldhaber-Fiebert JD, Heneghan AM, Zhang J, Rolls Reutz J, et al. Mental health services use by children investigated by child welfare agencies. Pediatrics. 2012;130(5):861–9. 10.1542/peds.2012-1330.
12. Jaffee SR, Christian CW. The biological embedding of child abuse and neglect: Implications for policy and practice. Social Policy Rep. 2014;28(1):1–36.
13. Karadağ F, Çavdar Kolbüken Y. Evaluation of children with health measures decision within the scope of protective/preventive services. J Med Social Work (Tıbbi Sosyal Hizmet Dergisi). 2022;19:86–102. 10.46218/tshd.1074232.
14. Kul M, Dağ P, Akdağ B, Canoğulları Kul G. Psychosocial evaluation results of children and adolescents followed within the scope of health measure. Bull Legal Med. 2023;28(3):267–72. 10.17986/blm.1657.
15. Ministry of Family and Social Services. (2023) *Türkiye Çocuk Hakları Strateji Belgesi ve Eylem Planı (2023–2028)*. Ankara. Available at: https://www.aile.gov.tr/media/132816/turkiye-c-ocuk-haklari-strateji-belgesi-ve-eylem-plani-2023-2028-dijital.pdf
16. Nasıroğlu S. Mental assessment of children and adolescents in health measure. Çukurova Med J. 2017;42(3):484–9. 10.17826/cutf.296421.
17. Sofuoğlu Z, Sarıyer G, Ataman MG. Child maltreatment in Turkey: Comparison of parent and child reports. Cent Eur J Public Health. 2016;24(3):217–22. 10.21101/cejph.a4155.
18. Strathearn L, Giannotti M, Mills R, Kisely S, Najman J, Abajobir A. Long-term cognitive, psychological, and health outcomes associated with child abuse and neglect. Pediatrics. 2020;146(4):e20200438. 10.1542/peds.2020-0438.

19. Van Berkel SR, Prevoo MJL, Linting M, Pannebakker FD, Alink LRA. Prevalence of child maltreatment in the Netherlands: An update and cross-time comparison. Child Abuse Negl. 2020;103:104439. 10.1016/j.chiabu.2020.104439.
20. Wille N, Bettge S, Ravens-Sieberer U. Risk and protective factors for children's and adolescents mental health: Results of the BELLA study. Eur Child Adolesc Psychiatry. 2008;17(Suppl 1):133–47.
21. Woods SB, Farineau HM, McWey LM. Physical health, mental health, and behaviour problems among early adolescents in foster care. Child Care Health Dev. 2013;39(2):220–7.