

# İSTİSMARA VE İHMALE UĞRAMIŞ ÇOCUKLARIN TEDAVİ VE REHABİLİTASYONU: BİR YATAKLI MERKEZ MODELİ

## Treatment and Rehabilitation of Abused and Neglected Children: An Inpatient Center Model

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### ABSTRACT

Rehabilitation and treatment centers are organizations that provide services for children and adolescents, with the main goal being to implement a “mental health” treatment plan for the individuals under their care. These organizations, which provide a continuous 24-hour service, may differ from one another in terms of the specific programs and treatment methods they apply.

The Oğuz Kağan Köksal Children and Youth Center was established in the Adana Province to provide for the treatment and rehabilitation of girls between the ages of 8 and 18 who have been subject to abuse or neglect, who suffer from alcohol/substance abuse, who are in need of treatment for mental problems and/or who live on the streets.

A study was made of 72 girls who had been admitted to the institution for treatment and rehabilitation since 2004 with a history abuse and neglect. The girls were assessed with the Beck Depression Inventory (BDI), the State Anxiety Inventory (STAI-I), the Trait Anxiety Inventory (STAI-II) and the Maudsley Obsessive Compulsive Inventory (MOCI) upon being admitted to the institution and at the end of their stay (i.e. their discharge). The differences between the mean admission and discharge scores of the girls in the BDI, STAI-I, STAI-II and MOCI assessments was determined to be statistically significant ( $p < 0.001$ ).

According to the duration of stay groups (0–3 months; 4–6 months; 7–9 months and  $\geq 10$  months), a statistically significant difference was identified between the mean admission and discharge scores of children who remained

in the institution for 3–7 months, with the post-treatment scores of the inventories being significantly lower in comparison to the baseline values ( $p \leq 0.05$ ). These results suggest discharging patients from the center prior to their third month of stay or a stay period of longer than seven months does not affect with any significance the scores of the depression, anxiety and obsession inventories.

To ensure a healthy society, it is of critical importance that children who have been subjected to abuse and neglect are given the appropriate support in treatment and rehabilitation centers; that plans are made concerning their lives and futures; that efforts are made to ensure that they can adapt to daily life after leaving the center; that measures are taken allowing them to continue their formal education; and that the necessary approaches are implemented so that they can effectively prepare for their occupational life.

**Keywords:** Residential Treatment Center, Children, Sexual Abuse.

### ÖZET

Rehabilitasyon ve tedavi merkezleri, çocuk ve ergenlere hizmet veren organizasyonlardır. Temel amaç, bakım verilen kişilerin “zihinsel sağlık” tedavi planlarının yapılmasıdır. Yirmi dört saat bakım veren, uygulanan programlar ve tedavi yöntemleri açısından değişiklik gösteren kuruluşlardır.

Oğuz Kağan Köksal Çocuk ve Gençlik Merkezi Adana ilinde, istismar ve ihmale uğramış, alkol-madde kullanan, ruhsal sorunları nedeni ile tedaviye ihtiyaç duyan, sokakta yaşayan 8-18 yaş arası kızların tedavi ve

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rehabilitasyonu amacıyla kurulmuştur.

Araştırmaya, 2004 tarihinden itibaren tedavi ve rehabilitasyon amacıyla kuruma kabul edilen ve istismar ve ihmale uğramış 72 kız çocuk alınmıştır. Kız Çocuklarına uygulanan Beck Depresyon Ölçeği (BDÖ), Durumluk Kaygı Envanteri (STAI-I), Sürekli Kaygı Envanteri (STAI-II) ve Maudsley Obsesif Kompulsif Soru Listesi (MOKSL) Yatış ve Son Ölçüm olarak uygulanmıştır. Kız çocuklarının, Durumluk Kaygı Envanteri (STAI-I), Sürekli Kaygı Envanteri (STAI-II) ve Maudsley Obsesif Kompulsif Soru Listesi (MOKSL) puan ortalamaları arasında istatistiksel olarak anlamlı bir fark bulunmuştur ( $p < 0.001$ ).

Çocukların gruplandırılmış kalış sürelerine (0-3 ay; 4-6 ay; 7-9 ay ve  $\geq 10$  ay) göre ölçeklerin puanlarının yatış-son ölçüm ortalamaları özellikle 3-7 ay arasında istatistiksel olarak anlamlı fark bulunmuştur. Ölçek puanlarının tedavi sonrası değerleri, başlangıç değerlerine göre önemli olacak şekilde düşük olduğu gözlenmiştir ( $p \leq 0.05$ ). Bu durum merkezde kalan kız çocuklarının 3 aydan önce taburcu edilmeleri ve 7. aydan sonra kalmaya devam etmelerinin depresyon, sürekli kaygı ve obsesyon ölçeği değerlerini anlamlı ölçüde etkilemediğini düşündürmektedir.

İstismar ve ihmale uğrayan çocukların tedavi ve rehabilitasyon merkezlerinde tedavilerinin yapılması ve uzun dönemde bu çocuklarının yaşamlarında neler yapabileceklerinin planlanması, merkezden ayrıldıktan sonra günlük yaşama adaptasyonlarının sağlanması ve örgün eğitimlerini sürdürebilmelerini ve daha sonra mesleki yaşama hazırlanmaları sağlıklı bir toplum olmamız açısından önemlidir.

**Anahtar kelimeler:** Tedavi ve rehabilitasyon merkezi, çocuklar, cinsel istismar.

## INTRODUCTION

Due to the increasing frequency and significance of child abuse in present-day society, it is both necessary and important to ensure that the treatment and rehabilitation of children who have been subjected to abuse is planned professionally and effectively. Following the initial examination and medical care of physical and sexual abuse cases, children are generally admitted to Social Service Institutions or returned to their parents. Children and families who are unable to take advantage of the necessary support and rehabilitation services experience feelings of isolation, which leads to a continuation of the trauma associated with the abuse, and can in time lead the

trauma to become chronic (1).

Accordingly, it is necessary to establish and organize Children and Youth Centers that are able to provide immediate attention to children who have been subjected to abuse and neglect; that can conduct initial meetings with the children and parents; that can implement measures to prevent trauma, primarily among the children, but also among the children's family; that can conduct activities to treat and rehabilitate any potential trauma and disturbance among children and their families; that can provide both inpatient and outpatient rehabilitation services; and that can employ personnel who are experience in the rehabilitation of children who have been abused or neglected (2).

These institutions, referred to as "Residential Treatment Centers" in literature, provide care, treatment and rehabilitation to children and young people who have been victims of sexual abuse (1). Based on the additional services they provide alongside their treatments, these institutions, which provide 24-hour care, differ considerably from regular psychiatry hospitals and social service institutions (2).

### Rehabilitation and Treatment Centers

The main goal of these institutions, which are not psychiatric hospitals in the strictest sense of the term, is to provide "mental health" treatment to the individuals under their care while also ensuring their safety. Most children admitted to these centers – which are also known as Residential Treatment Centers – have histories of abuse and neglect, along with associated disorders and conditions (3-6). These centers are generally divided into three types, being: low, medium and high-security centers. Along with centers in which only girls or boys are admitted, there are also coed rehabilitation and treatment centers, providing support to patients of both genders. More than 50% of children and adolescents admitted to treatment and rehabilitation centers have histories of abuse and neglect, substance abuse-related disorders, alcoholism and/or mental disability (5,7) In the United States, depending on a psychiatric diagnosis the treatment of the children to be rehabilitated is performed within the scope of an integrated program that progresses from high-security centers to low-security centers. This security-related progression enables children to better reintegrate with society following their treatment. Children admitted to these centers are provided with integrated treatment programs that include medical treatments, individual and group therapies and recreational activities.

In the United States, the admission of children into

Residential Treatment Centers is dependent upon certain criteria. For a child to receive treatment at such centers there must first be a court order, approval of the children's parents or legal guardians, and the necessary social assessment reports. In case these criteria are satisfied, the application committee of the treatment and rehabilitation center will discuss whether the child fulfils the acceptance criteria of the institution. These meetings are conducted with the participation of the child's family/legal guardian, the relevant regional social workers and the child him/herself. Should the social worker or the child's family/legal guardian be unable to attend the meeting, a document must be obtained from them. During these meetings, video presentations can also be made by the committee to allow the child and his/her family to better understand the treatment program provided at the center. The discharge of a child from the treatment and rehabilitation center also requires a court order. To arrange a hearing concerning the discharge of a child, the social service institution must forward to the court a written request after contacting the family and discussing the matter with them. In this context, a discharge plan that includes information concerning the post-discharge treatment of the child, a follow-up plan for the child's treatment and a home visit schedule will be submitted to the court. Following the granting of court approval for the child's discharge, the monitoring of the child will continue at stated time intervals (4,7).

The total number of full-time personnel working with children and youths in the United States is approximately 39,000, while the total budget allocated to these centers every year is approximately \$1.3 billion. Nearly one-third of all centers in the United States provide partial care services, while a further one-third provide outpatient care. The US states with the highest number of centers are Minnesota and Colorado, which have approximately one center per 100,000 inhabitants. Nearly 94% of the patients at these centers are under the age of 18, and previous studies of patients at these centers have reported that 70% of them are male, while 30% are female, 28% are Black and 10% are Hispanic (8).

Children and adolescents who have been victims of sexual abuse often display increased sexual behavior, which may lead them to experience increased social pressure or into a repetition of the abuse (9). If the abuse was committed by someone from the family, the first priority will be the protection of the child. In this context, Residential Treatment Centers assume an important role in ensuring the safety of these children and adolescents,

and in providing for the treatment of mental symptoms resulting from the abuse (10). These centers may implement various treatments, such as psychodynamic therapy or the improvement of social skills through behaviorist methods (11). Approaches such as anger management, family training and problem-solving skills are also employed in the treatment of children and adolescents with behavioral problems (12).

Numerous studies have reported favorable outcomes from the treatments provided at Residential Treatment Centers. In a study conducted in Canada of 40 traumatic children, it was observed that although the majority of the children continued to display moderate traumatic symptoms in the immediate period following their discharge, their mental health had mostly returned to normal within a period of one to three years after the end of their treatment (13). A 23-year observational study conducted of 268 Israeli children by Weiner and Kupermintz also demonstrated the effectiveness of Residential Treatment Centers (14).

Problems related to school and education are observed more frequently among children and adolescents receiving care at Residential Treatment Centers (15). Children who become detached from their homes due to the neglect or indifference of their parents are rarely able to receive adequate support for their education (16), and while low performance at school is only one of the problems experienced by these children, problems relating to education can lead to more serious consequences in their adult lives (17). It is known that most students under care at Residential Treatment Centers are in need of special education or tutoring. In a previous study, it was observed that 40% of children and adolescents residing in different Residential Treatment Centers required special education/tutoring, while this ration is only 5% in society as a whole (18). The difficulties experienced by children and adolescents in education can stem from a large number of different factors, such as personal attitudes, or issues relating to the quality of care provided by the centers (19-21). The differences between the care system in place at the center and the educational system encountered in school, as well as the stigmatization of students residing at treatment and rehabilitation centers, can have various negative results with regards to academic performance. It is observed that girls generally adapt more easily to changing environments and new situations, while boys experience greater problems at school (17,22). It is believed that placing greater emphasis on extracurricular activities in

Residential Treatment Centers, and ensuring more positive interactions between the centers' employees and the residents, can reduce the potential problems that a child might experience at school (23).

According to the limited number of studies available, some 76–98% of children at Residential Treatment Centers are prescribed psychotropic medication – which corresponds to a very high ratio. In these studies, it is reported that the most commonly prescribed medications are antipsychotics, which are administered for the treatment of destructive behaviors (24).

### **Oğuz Kağan Köksal Social Care and Rehabilitation Center**

Despite the numerous high-quality treatment and rehabilitation centers around the world aimed at supporting children who have been victims of abuse and neglect, there are only a few of such centers in Turkey. Following four years of preparation, The Oğuz Kağan Köksal Social Care and Rehabilitation Center was the first such institution to be founded in Turkey, and has been providing services for over 13 years, although it is currently experiencing difficulties in meeting Turkey's needs and requirements with regards to the provision of care for children and adolescents. As the leading center in its field in Turkey, information about the inpatient treatment and monitoring of abuse cases at the Oğuz Kağan Köksal Social Care and Rehabilitation Center will contribute significantly to existing literature, while information regarding the treatment methods used at the center and the effectiveness of such methods will serve as a guide for new centers.

In this study, the aim is to present an overview of the Adana Oğuz Kağan Köksal Children and Youth Center, providing information on how it functions, while also describing the characteristics of the cases admitted to the center and the applied treatments.

The Oğuz Kağan Köksal Children and Youth Center was established in the Adana Province to provide for the treatment and rehabilitation of girls between the ages of 8 and 18 who have been subject to abuse and neglect, who suffer from alcohol/substance abuse, who are in need of treatment for mental problems and/or who live on the streets.

Adana is a Turkish province in which many different socio-cultural structures coexist, and which receives a constant influx of immigrants. In parallel with the high unemployment rate in the province, the number of cases child abuse, child neglect and juvenile delinquency are also relatively high. Discussions relating to the founding

of the center were first launched in 2000, when police institutions in the province drew attention to the need for a treatment and rehabilitation center. Following four years of preparation, the center opened its doors for the provision of services in April 2004. While Turkey's first treatment and rehabilitation center was actually founded in Istanbul, it operates a system that differs considerably from the Oğuz Kağan Köksal center, and provides services to a different group of patients. Accordingly, although the center in Adana is the second to have been founded in Turkey to provide services to children who are victims of abuse, it is actually the first to provide comprehensive services in every area, from psychiatric treatment to education.

### **Protocol of the Oğuz Kağan Köksal Children and Youth Center**

The operational procedures and objectives of the center were first developed in the protocol dated 21 January, 2001. This protocol, which was drafted with the participation of numerous public institutions and non-governmental organizations, defined fully the tasks, responsibilities and authorities of each party and institution involved. The institutions and organizations included in the protocol include Çukurova University, Adana Metropolitan Municipality, the Adana Bar Association, the Judicial Authorities of Adana, the Provincial Directorate of National Education, the Provincial Directorate of Health, the Provincial Directorate of Security, the Provincial Directorate of Social Services, Provincial Gendarmerie Command and the Adana Street Children Association.

After its launch in 2004, the treatment and rehabilitation services provided by the Adana Oğuz Kağan Köksal Children and Youth Center were organized and conducted initially by the Department of Child and Adolescent Psychiatry of the Çukurova University Medical Faculty; and later by the Department of Child Psychiatry of the Ministry of Health Ekrem Tok Psychiatric Hospital. Nowadays, the psychiatric treatment and rehabilitation of children admitted to the center is carried out by the Department of Child Psychiatry of the Ministry of Health Adana Aşkın Tüfekçi Hospital.

## **MATERIAL and METHOD**

### **The Study Group**

The Adana Oğuz Kağan Köksal Children and Youth Center first entered into service on 26 April, 2004. To date, the center has provided care and services to 72 girls

between the ages of 8 and 18 who had been subjected to sexual, physical and emotional abuse or neglect; who had suffered from alcohol/substance addiction or abuse; who were in need of treatment for mental problems; and/or who were living on the streets due to social reasons. Necessary approval for the collection of study data was obtained from the Ethics Committee of our institution, and informed consent was obtained from the children who had been admitted to the center and were included in the study, and also from their parents, whenever necessary. Upon admittance to the facility, the children were administered a Beck Depression Inventory (BDI), a State Anxiety Inventory (STAI-I) and a Trait Anxiety Inventory (STAI-II), and again prior to their discharge. The sociodemographic characteristics and psychiatric diagnoses of the children admitted to the center were also recorded.

#### **Data Collection Tools**

##### **Patient Information Form**

The form was developed by the Child and Adolescent Psychiatry Department of the Çukurova University Medical Faculty, and was used to record demographic information of the children admitted to the center, including their age, gender, education level and the occupational status of their parents.

##### **The Beck Depression Inventory for Children**

The Beck Depression Inventory (BDI) for Children is a self-reporting scale prepared based on the assumptions that: children can experience depression, child depression is both observable and measurable and the characteristics of depression in children are similar to those observed in adults. The inventory was first developed by Kovacs in 1981, and was prepared based on the original BDI. The validity and reliability assessment of the Turkish version of this inventory was carried out in Turkey by Öy (1991). The inventory is a Likert-type scale, comprising a total of 27 questions, and can be administered to children between the ages of 6 and 17. The pathological threshold of the BDI is considered to be 19 points and above (25).

The BDI includes 21 categories relating to depressive symptoms, such as sadness, pessimism, past failure, loss of pleasure, feelings of guilt, punishment feelings, self-dislike, self-criticism, self-punishment, crying, agitation, loss of interest, indecisiveness, worthlessness, loss of energy, changes in sleep patterns, irritability, changes in appetite, weight loss and somatic complaints. Each of these categories is addressed with three self-assessment items, which are scored between 0 and 3.

##### **State Trait Anxiety Inventory for Children**

This inventory was first developed by Spielberger in 1976, and the validity and reliability assessments of the Turkish version of the inventory were carried out by Özusta (1995). Although the validity and reliability study for this inventory was carried out for children between the ages of 9 and 12, it remains valid for children up to the age of 17.

The State (STAI TX-1) and Trait (STAI TX-2) Anxiety Inventories require the individual to describe how he/she feels at a particular moment or under certain circumstances, reflecting precisely his/her emotions regarding his/her current situation. A high score indicates a high level of anxiety.

##### **The State Anxiety Inventory (STAI TX-1):**

Children are asked to describe how they feel right now, at the very moment they are completing the inventory, selecting the answer that they deem the most appropriate. Examples of possible answers include "I feel ( ) very angry, ( ) angry, ( ) not angry at all." The total number of items in the inventory is 20, and the lowest possible score is 20, while the highest possible score is 60. As the State Anxiety Inventory is sensitive to any agitation/uneasiness that may develop in the patient during the tests, it is generally recommended that this inventory be administered prior to the Trait Anxiety Inventory (26).

##### **The Trait Anxiety Inventory (STAI TX-2):**

This inventory assesses a child's susceptibility to anxiety, as well as the differences in individual traits. The inventory consists of a total of 20 items, and how a child feels is evaluated generally according to the frequency of certain feelings and behaviors. Statements such "I feel angry at home" or "My hands shake" are answered using one of the following responses: "almost never," "sometimes," "often" and "almost always." Scores can vary between 20 and 60, with a higher score being associated with increased anxiety (26).

##### **Maudsley Obsessive Compulsive Inventory (MOCI):**

This inventory, developed by Hodgson and Rachman (1977), assesses the obsessive compulsive symptoms exhibited by patients. The validity and reliability assessment of the Turkish version of this inventory was carried out by Erol and Savaşır in 1988. As a self-reporting scale whose questions are answered either true or false, MOCI was designed to identify different types of obsessive compulsive symptoms in patients, and to distinguish obsessive patients from other neurotic patients. The Turkish version of MOCI was adapted with

the addition of seven further items, which brought the total number of items in the questionnaire to 37. Items answered as “True” are given 1 point, with the exception of item number 11, which is given 1 point in case it is answered as “No” or “False”. The inventory has demonstrated its validity and reliability for assessing the type and frequency of obsessive compulsive symptoms in normal and psychiatric cases between the ages of 12 and 20, within the context of research studies and clinical use; however, the questionnaire is generally used for children aged 9 and older. The inventory includes subscales for cleanliness, doubt, checking and slowness (27, 28).

### Statistical Analysis

The SPSS 15.0 package program was used for the statistical analysis of the data, with mean and standard deviation used to summarize the continuous measured variables. Numbers and percentages were used to summarize such categorical variables as gender and reason for admission. Depending on whether the normality assumption was satisfied during the comparison of the initial and final assessments/measurements, either the t test or the Wilcoxon Signed Ranks test was employed for the dependent groups. Depending on the grouped data in question, either the t test or its alternative, the Mann Whitney U test, was employed for the comparison of the inventories of independent groups. In all types of analysis, the level of statistical significance was accepted as 0.05.

## RESULTS

In this study, a total of 72 girls who had been victims of abuse and neglect, and who received inpatient care and treatment at the Adana Oğuz Kağan Köksal Children and Youth Center since April 2004, were evaluated. The age of the respondents varied between 10 years 5 months and 19 years 3 months (Mean: 14.83 years; SD: ss.  $\pm$  2.12).

The level of education of the respondents varied from no education at all to ongoing education in the 10<sup>th</sup> grade (Mean: 6.28; SD:  $\pm$  2.66). Among the girls residing at the center, 70 (97.2%) had some level of education, while 2 (2.8%) had received no education. Of the total, 24 (33.4%) were elementary school graduates, while 46 (63.8%) were either secondary school graduates or were currently attending secondary school.

The number of siblings of the girls who had been subjected to abuse and neglect was 1–3 for 46 (63.9%) of the girls, while 15 (20.9%) of the girls had 4–7 siblings, 3 (4.2%) had 8–13 siblings and 8 (11.1%) were the only

child in their family. Among the girls admitted to the center, 65 (90.3%) of the girls had mothers who were still alive, while 64 (87.5%) of the girls had fathers who were still alive.

An evaluation of the families of the girls revealed that 41 (56.9%) had parents who lived together, while 16 (22.2%) had broken families, and 15 (20.8%) had divorced families. An evaluation of the lifestyle of the children's families revealed that 39 (54.2%) of the girls lived with their nuclear families; 14 (19.5%) were under the care of the Turkish Social Services and Child Protection Agency (*Sosyal Hizmetler ve Çocuk Esirgeme Kurumu*, SHÇEK); 12 (16.7%) lived with their mothers, four (5.6%) lived with their extended families, and four (5.6%) lived with other people or in other environments (such as with foster families, adopted families or stepmothers).

An evaluation of the occupational status of the children's parents revealed that 52 (72.2%) of the girls had homemaker/housewife mothers, while nine (12.5%) had mothers working at irregular jobs, six (8.3%) had manual worker mothers, two had retired mothers, and three (4.2%) had mothers working in other occupations. In addition, it was determined that 31 (43%) of the girls had worker fathers, while 15 (20.8%) had unemployed fathers, 14 (19.4%) had self-employed fathers, six (8.3%) had retired fathers, five (6.9%) had farmer fathers, and one (1.4%) had a father in prison. An evaluation of the physical health of the girls' parents indicated that 56 (77.8%) of the girls had mothers with no physical diseases, while four (5.6%) had mothers with hypertension/obesity, three (4.2%) had mothers with diabetes, three (4.2%) had mothers with renal insufficiencies, two (2.8%) had mothers with heart disease, and four (5.6%) had mothers with other types of diseases. On the other hand, 64 (88.9%) of the girls had fathers with no physical diseases, while four (5.6%) had fathers with herniated discs, and four (5.6%) had fathers with other types of diseases.

An evaluation of the psychiatric status of the parents of the respondents revealed that 61 (84.7%) had mothers with no psychiatric diseases, while four (5.6%) had mothers who had been diagnosed with psychoses, four (5.6%) had mothers diagnosed with depression, and four (5.6%) had mothers diagnosed with neuroses. On the other hand, 56 (77.8%) of the girls had fathers with no psychiatric diseases, while eight (11.1%) had fathers diagnosed with personality disorders, six (8.3%) had fathers diagnosed with substance abuse disorders, and

two (2.8%) had fathers diagnosed with psychoses.

Among the abuse and neglect victims admitted to the Adana Oğuz Kağan Köksal Children and Youth Center, 24 (33.3%) had fathers who used alcohol, while 48 (66.7%) had fathers who did not use alcohol.

Furthermore, 71 (98.6%) of girls had been referred to the center by the children police, a prosecutor or a court; while only one (1.4%) had made a personal application to the center.

Table 1. Reasons for the Admission of Girls to the Center

REASON FOR ADMISSION	YES	NO
	n / %	n / %
Sexual Abuse	48 / 66.7	24 / 33.3
Rape	27 / 37.5	49 / 68.1
Incest	13 / 18.1	59 / 81.9
Forced Prostitution	7 / 9.7	65 / 90.3
Physical Abuse	18 / 25.0	54 / 75.0
Absconder (From Home, SHÇEK, etc.)	31 / 43.1	41 / 56.9
Neglect	34 / 47.2	38 / 52.8
Suicide Attempt	8 / 11.1	64 / 88.9
Witness to a Suicide Attempt	1 / 1.4	71 / 98.6
Theft	4 / 5.6	68 / 94.4

According to Table 1; 48 (66.7%) of the girls admitted to the Adana Oğuz Kağan Köksal Children and Youth Center were victims of sexual abuse, while 27 (37.5%) were victims of rape, 31 (43.1%) had absconded from their home or a SHÇEK institution, 18 (25.0%) were victims of physical abuse, 13 (18.1%) were victims of incest and 34 (47.2%) had been referred to the center by the children police, a prosecutor or court due to neglect.

Of the total, four (5.6%) of the girls admitted to the center absconded during their stay, and have yet to be found. In addition, seven (9.7%) of the girls admitted to the institution had become pregnant as a result of rape. When questioned further on this matter, it was determined that the rape had been committed by the biological fathers of two (2.8%) of the girls; by an elder brother for one (1.4%) of the girls, by a stepfather for one (1.4%) of the girls, by a sister's husband for one (1.4%) of the girls and by unknown assailants for two (2.8%) of the girls.

Girls who had been referred to a Child Psychiatry Clinic by the children police were first evaluated by child psychiatrists, who diagnosed them according to the DSM-IV. Following their evaluation, the girls were admitted to the Oğuz Kağan Köksal Children and Youth Center for treatment, and the diagnoses of children admitted to the center between 2003 and 2007 are described below.

An evaluation of the Axis I Diagnoses of the respondents indicated that 30 (41.8%) had been diagnosed with Post-Traumatic Stress Disorder (PTSD), while 30 (41.8%) had been diagnosed with Conduct

Disorders, five (6.9%) had been diagnosed with child depression, two (2.8%) had been diagnosed with Acute Stress Disorder, two (2.8%) had been diagnosed with Attention Deficit Hyperactivity Disorder, one (1.4%) had been diagnosed with child Schizophrenia, one (1.4%) had been diagnosed with Obsessive Compulsive Disorder, and one (1.4%) had been diagnosed with Bipolar Disorder Manic Attacks.

An evaluation of the Axis II Diagnoses of the respondents indicated that 12 (16.7%) had been diagnosed with mental retardation, while 19 (26.4%) had been diagnosed with Borderline Personality Disorder, and six (8.3%) had been diagnosed with both Mental Retardation and Borderline Personality Disorder.

Finally, an evaluation of the Axis III Diagnoses of the children indicated that two (2.8%) had been diagnosed with epilepsy, while seven (9.7%) had become pregnant as a result of rape.

Table 2. Mean Admission and Discharge Scores of Inventories Administered to Girls

INVENTORIES	ADMISSION	DISCHARGE	p
	Mean / ±sd	Mean / ±sd	
Beck Depression Inventory	18.00 ± 8.97	14.27 ± 6.77	.001*
State Anxiety Inventory (STAI-I)	41.00 ± 7.99	34.97 ± 8.46	.000*
Trait Anxiety Inventory (STAI-II)	40.78 ± 10.19	34.59 ± 9.27	.000*
Obsessive Compulsive Inventory	19.43 ± 6.97	16.15 ± 6.52	.000*

\* p<0.05

As can be seen in Table 2, a significant difference was identified between the mean BDI scores measured during the girls' admission the center and at their discharge (as a note, 20 of the children are still residing at the center) (p=0.001).

The differences between the girls' mean scores for the BDI, STAI-I, STAI-II and MOCI were determined to be statistically significant (p<0.001).

The mean scores for the BDI, the STAI-I, the STAI-II and the MOCI observed at the end of treatment (i.e. at their discharge) were significantly lower than the mean scores observed at the baseline (i.e. at admission) (p≤ 0.001).

Girls admitted to the Oğuz Kağan Köksal Children and Youth Center resided at the institution for an average of 6.39 ± 4.54 months. When the girls who were eventually discharged from the center are grouped according to their duration of their stay, it is observed that 18 (25%) stayed at the center for 0–3 months, while 27 (37.5%) stayed for 4–6 months, 16 (22.2%) stayed for 7–9 months and 11 (15.3%) stayed for 10 months or more.

Table 3. Comparison of the Mean Admission and Discharge Scores of the Inventories Administered to the Girls According to their Duration of Stay (0–3 months, 4–6 months, 7–9 months, 10 months and longer)

DURATION OF STAY	INVENTORIES	ADMISSION	DISCHARGE	$\bar{p}$
		Mean / $\pm$ sd	Mean / $\pm$ sd	
0–3 MONTHS	Beck Depression Inventory	17.53 $\pm$ 10.37	12.20 $\pm$ 6.8	.059
	State Anxiety Inventory (STAI-I)	39.80 $\pm$ 9.68	33.20 $\pm$ 8.71	.007
	Trait Anxiety Inventory (STAI-II)	40.67 $\pm$ 11.31	32.33 $\pm$ 9.27	.013
	Obsessive Compulsive Inventory	18.88 $\pm$ 7.66	15.19 $\pm$ 7.54	.002
4–6 MONTHS	Beck Depression Inventory	18.29 $\pm$ 8.43	13.92 $\pm$ 6.56	<b>.004*</b>
	State Anxiety Inventory (STAI-I)	41.72 $\pm$ 5.97	36.48 $\pm$ 9.34	<b>.001*</b>
	Trait Anxiety Inventory (STAI-II)	40.04 $\pm$ 8.39	34.68 $\pm$ 9.19	<b>.016*</b>
	Obsessive Compulsive Inventory	22.46 $\pm$ 6.02	17.88 $\pm$ 7.09	<b>.002*</b>
7–9 MONTHS	Beck Depression Inventory	19.40 $\pm$ 8.54	15.53 $\pm$ 7.20	<b>.011*</b>
	State Anxiety Inventory (STAI-I)	42.71 $\pm$ 9.78	34.93 $\pm$ 7.81	<b>.000*</b>
	Trait Anxiety Inventory (STAI-II)	45.29 $\pm$ 10.59	36.57 $\pm$ 9.77	<b>.001*</b>
	Obsessive Compulsive Inventory	16.53 $\pm$ 6.28	14.67 $\pm$ 5.09	.272
$\geq$ 10 MONTHS	Beck Depression Inventory	17.60 $\pm$ 9.63	14.11 $\pm$ 7.35	.932
	State Anxiety Inventory (STAI-I)	40.82 $\pm$ 9.15	33.90 $\pm$ 6.99	<b>.008*</b>
	Trait Anxiety Inventory (STAI-II)	36.50 $\pm$ 11.21	35.00 $\pm$ 9.46	.760
	Obsessive Compulsive Inventory	17.40 $\pm$ 7.09	15.80 $\pm$ 5.03	.510

\*  $p \leq 0.05$

From Table 3, a significant difference can be identified between the admission and discharge assessment scores of the inventories of children within the 0–3 months group, with the post-treatment scores of the inventories being significantly lower in comparison to the baseline values ( $p \leq 0.05$ ).

A significant difference was also identified between the admission and discharge assessment scores of the inventories of the children within the 4–6 months group ( $p < 0.05$ ). However, when the level of significance between the mean admission and discharge scores of all inventories is evaluated, it can be determined that the differences in mean scores following 3–7 month stays are more significant than the differences observed following the 0–3 month and  $\geq 7$  month groups. Based on an evaluation of the different durations of stay, we believe that 3–7 month stays lead to more significant differences in the scores of the girls.

A significant difference was identified between the mean admission and discharge scores of the BDI, the STAI-I, the STAI-II and the MOCI of the children in the

7–9 month group. Except for the MOCI, the post-treatment scores of all inventories were significantly lower compared to the baseline values ( $p < 0.05$ ). It was determined that the changes in the MOCI scores were not significant.

A significant difference was identified between the admission and discharge scores of the State Anxiety Inventory among girls in the 7–9 month group.

An evaluation of the children's reasons for admission revealed that 29 (40.3%) had been admitted for a single reason, while 10 (13.9%) had been admitted for a combination of two reasons, 19 (26.4%) had been admitted for a combination of three reasons, eight (11.1%) had been admitted for a combination of four reasons, four (5.6%) had been admitted for a combination of five reasons, and two (2.8%) had been admitted for a combination of six reasons. To evaluate the effect of the number of reasons for admission on the inventory scores, comparisons were performed between those admitted for two reasons or less, and those admitted for three reasons or more.



Table 4. Comparison of Girls' Admission and Discharge Inventory Scores according to Number of Reasons for Admission.

INVENTORIES	Those admitted for 2 reasons or less	Those admitted for 3 reasons or more	p
Beck Depression Inventory – Initial Assessment	17.56 ± 9.54	18.35 ± 8.5	.714
Beck Depression Inventory – Final Assessment	14.11 ± 7.35	14.45 ± 6.13	.846
State Anxiety Inv. (STAI-I) – Initial Assessment	40.13 ± 9.11	41.77 ± 6.55	.411
State Anxiety Inv. (STAI-I) – Final Assessment	33.97 ± 8.71	36.10 ± 8.16	.319
Trait Anxiety Inv. (STAI-II) – Initial Assessment	41.08 ± 10.57	40.07 ± 9.50	.682
Trait Anxiety Inv. (STAI-II) – Final Assessment	35.21 ± 9.05	33.90 ± 9.62	.578
Obsessive Compulsive Inv. – Initial Assessment	19.21 ± 6.69	19.50 ± 7.26	.865
Obsessive Compulsive Inv. – Final Assessment	16.61 ± 6.37	15.59 ± 6.77	.533

\* p≤0.05

It can be understood from Table 4 that no significant difference was identified between groups with different numbers of reasons for admission with respect to the mean admission and discharge scores of their BDI, STAI-I, STAI-II and MOCI. This suggests that the number of reasons for admission had no effect on the mean inventory scores of the children.

## DISCUSSION

Rehabilitation and treatment centers provide services to children and adolescents, with the main goal being to implement a “mental health” treatment plan to the individuals under their care. Aside from the inpatient psychiatric care they provide, children and youth centers also provide the most expensive and comprehensive care for children with emotional and behavioral disorders.

The initial extent of the psychiatric and behavioral problems displayed by child victims of abuse and neglect determines the length of time they will spend at the center, as well as the type of treatment they will receive. In other words, patients with more psychiatric problems tend to stay for longer periods. In our study, it was observed that the duration of stay of a patient is dependent on how they respond to psychiatric treatment and rehabilitation. In addition, considerations of where the child will reside or live after being discharged also affects the duration of their stay at the center.

More than 50% of children and adolescents admitted to treatment and rehabilitation centers have a history of abuse and neglect, substance abuse-related disorders, alcoholism, and/or mental disability (5,7). The Adana Oğuz Kağan Köksal Children and Youth Center was founded initially to provide services to both girls and boys. However, to ensure the training of personnel at the center, and to ascertain the effectiveness of the center's programs; the center initially began to admit girls who

have been victims of sexual abuse.

The age of the 72 girls admitted to the Adana Oğuz Kağan Köksal Children and Youth Center since April 2004 varied between 10 years 5 months and 19 years 3 months (Mean: 14.83; SD: ± 2.12), which is in line with the general data concerning the age range of patients admitted to such centers. Previous studies have indicated that, in a manner similar way, centers generally accept both children and adolescent patients (29).

An evaluation of the level of education of the respondents in this study indicated that 33.4% were either elementary school graduates or were still continuing their elementary education; while 63.8% had dropped out or graduated from high school, or were still continuing their high school education. Although the level of education of the patients may, at first, appear to be compatible with their age, the actual inadequacy of their cognitive functions represents a risk factor with regards to them becoming a victim of abuse or neglect (30).

The occupational status of the respondents' parents and whether they are alive or dead can affect the level of risk of a children becoming subject to abuse or neglect (31). In this study, it was determined that 72.2% of the girls had non-working mothers, while 41.6% had fathers who were either unemployed or working in temporary jobs.

An evaluation of the physical diseases of our cases' mothers indicated that 22.2% of the girls had mothers with chronic diseases such as diabetes, hypertension and cardiac diseases. Chronic diseases affecting the children's mothers are considered as a potential risk factor for abuse and neglect. This is because mothers' with chronic diseases will have lower qualities of life, which in turn will lead to difficulties in the monitoring and disciplining of the child.

According to David and Shenyang, a history of

psychiatric disease in parents was determined to be a risk factor for patients receiving treatment at children and youth centers for abuse and neglect. It is worthy of note that 22% of the respondents in this study had fathers with histories of psychiatric diseases, among which, 11.1% had fathers with antisocial personality disorders, 8.3% had fathers with histories of substance abuse and 2.8% had fathers with psychoses. The results of our study concur with the findings of previous literature (32). According to a study conducted by Dale, Baker, Anastasio and Purcell in 2007, the ratio of psychiatric disorders among the parents of the patients was 8.4%, while the ratio of substance abuse among these parents was 60.8%. That said, the results of the noted study are not in agreement with the ratios of our study (33). In Turkey, studies charting the frequency of substance abuse among adults are relatively recent, and so the current prevalence of such studies are insufficient. In addition to this, we believe that the overall prevalence of substance abuse in Turkey is unlikely to be very high.

An evaluation of the family status of our cases indicated that 56.9% had parents who lived together, while 43.1% had parents who were either divorced or separated. Sources generally describe problems such as social unrest, familial problems, divorce and separated parents as common among children admitted to treatment centers who have been subject to sexual abuse. It has also been reported that, aside from the familial problems they experience, some of the victims of abuse and neglect admitted to treatment and rehabilitation centers have previously resided in Children's Homes or in Child Protection Agency facilities prior to admission (30). Similarly, we were able to observe that 14 (19.5%) of our cases had previously stayed at facilities of Social Services and the Child Protection Agency.

Some of the girls admitted to the Oğuz Kağan Köksal Children and Youth Center have experienced more than one instance/type of abuse and neglect. When the reasons for the girls' admittance to the center are reviewed, it can be seen that 66.7% were victims of sexual abuse, while 47.2% had been subjected to neglect, 43.1% had absconded from home or from social institutions, 37.5% were victims of rape, 25% were victims of physical abuse, 18.1% were victims of incest and 11.1% had attempted suicide. A 2007 study by Dale, Baker, Anastasio and Purcell revealed that of the 648 patients admitted to 16 Children and Youth Treatment Centers in New York, 42.3% were victims of physical abuse, 17.8% were victims of sexual abuse and 50.9% had been subjected to

neglect (33). In comparison to the ratios reported in previous literature, we observed that physical abuse was a less common reason for admission among the cases of our study. In Turkey, not every event or instance of physical violence is reported to social institutions, or to the children police or judicial authorities, and this is possibly why the ratio observed in our study was lower than that reported in literature. Furthermore, the majority of those admitted to our center were victims of sexual abuse, and this high ratio is mainly associated with the fact that, once cases of sexual abuse – such as those experienced previously by the abuse and neglect victims at our center – are reported to the judicial authorities, they become subject to public prosecution (which prevents the underreporting of cases).

Children who have been subject to abuse and neglect often suffer from long-term negative effects, and many psychiatric disorders represent a risk factor for abuse and neglect. Anxiety disorders may develop within a short period of time among children who have been victims of sexual abuse, in which sleep disorders, nightmares, phobias, physical complaints and fear reactions can also be observed. Attention Deficit Hyperactivity Disorder, and secondary enuresis and encopresis are common among children who have been subjected to sexual abuse, and dissociation is considered as a primitive defense mechanism against mental trauma. Among these children, conversion reactions were also found to be very frequent. Many of the children who have lived such negative and traumatic experiences developed post-traumatic stress disorder and depression, and their self-respect is often severely damaged. Ideas and attempts at suicide are common among victims of sexual abuse, along with anger reaction, weak impulse control and oppositional defiant disorders. The ability of these children to form interpersonal and social relations is also negatively affected; and furthermore, high-risk sexual behaviors are observed more frequently among abused children. There are various studies reporting that children with a history of sexual abuse are at a higher risk of being further subjected to sexual assault (34-37).

Children can be referred to our center not only by the High Criminal Courts, Penal Courts of First Instance and Juvenile Courts, but also by the children police. During the admission process, children are first brought to the Child Psychiatry Clinic, and following their evaluation by a child psychiatrist, who makes a diagnosis of their conditions according to the DSM-IV, the girls are admitted to the Oğuz Kağan Köksal Children and Youth

Center. Among the patients admitted to the center for treatment, 41.8% were diagnosed with post-traumatic stress disorder, while 41.8% were diagnosed with conduct disorders, 6.9% with depression, 2.8% with attention deficit hyperactivity disorder and 2.8% with acute stress disorder. According to previous studies, children who are victims of sexual abuse are often diagnosed with conditions such as post-traumatic stress disorder, conduct disorder, attention deficit hyperactivity disorder, oppositional defiant disorder, dissociation and impulse control disorder (38-40), and in our study also, it was observed that abuse and neglect victims were given similar diagnoses according to the DSM-IV.

According to studies evaluating emotional and behavioral effects in children who have been victims of sexual abuse, these children develop behaviors such as fear reactions, anxiety, depression and anger (41, 42). For the treatment and rehabilitation of children with a history of abuse and neglect, residential treatment centers not only provide children with the opportunity to adapt to a continuously independent style of living, but also provide medical and psychiatric treatment in line with the existing diagnoses of the children. Symptoms of post-traumatic stress disorder, anxiety and depression are treated with psychopharmacological agents and various therapy methods, while psychometric assessments are carried out to evaluate the effectiveness of the applied treatments (43, 44). Within a period of three years, girls admitted to the Oğuz Kağan Köksal Children and Youth Center remained at the institution for an average of  $6.39 \pm 4.54$  months. Significant differences were identified between the mean admission and discharge assessment scores of the BDI, the STAI-I, the STAI-II and the MOCI of the 72 children admitted to the center (some of whom are still residing at the center, while others have been discharged). The post-treatment scores of these inventories were significantly lower in comparison to the baseline values ( $p \leq 0.05$ ), which indicates the effectiveness of such treatment centers in treating victims of sexual abuse, and that these centers encourage a reduction of psychiatric symptoms.

When the duration of the patients' stays were evaluated, it was observed that 18 (25%) had stayed at the center for 0–3 months, while 27 (37.5%) had stayed for 4–6 months, 16 (22.2%) had stayed for 7–9 months and 11 (15.3%) had stayed for 10 months or more.

For children in the 0–3 month and the 4–6 month groups, significant differences were noted between the mean admission and discharge assessment scores of the BDI, the STAI-I, the STAI-II and the MOCI. For these

groups, the post-treatment scores of the inventories were significantly lower in comparison to the baseline values (Figure 4.4.3 and Figure 4.4.4). According to a previous study, the administration of depression, anxiety and self-respect inventories to 54 girls admitted to a treatment and rehabilitation center following sexual abuse demonstrated a reduced self-respect and increased levels of depression and anxiety among the patients (45).

According to a study by Hussey DL and Guo S, over a period of 18 months, the average duration of stay of girls who had suffered sexual abuse was determined as 374 days (46). The initial extent of the psychiatric and behavioral problems displayed by the patients determines the length of time they spend at the center, as well as the type of treatment they will receive (47), while according to a study by Kupsinel and Dubsky, the type and extent of the conduct disorder exhibited by the children further determines the duration of their stay. In other words, patients with more problems tend to stay at the center for longer periods. In addition, considerations regarding the place where the child will live and reside after being discharged also affects the duration of their stay (42). In our study, the duration of the patients' stay at the center was determined from their response to the psychiatric treatment and rehabilitation. For these patients under the treatment of child psychiatrists, it is important for the severity of the initial symptoms to gradually decrease during the treatment process. In addition to this, the environment in which the child will live and reside following discharge (family, SHÇEK, etc.) can also extend the duration of a child's stay at the center. This is because the question of where a child will live/reside is an important problem in case it is not suitable for her to live with her family. Aside from SHÇEK, there are no other institutions in Turkey where children can reside.

In the present study, patients who stayed at the center for 7–9 months and for 10 months and longer demonstrated a decrease in only the mean score of their State Anxiety Inventory. No significant differences were identified in the depression inventory, the trait anxiety inventory or the obsession inventory of patients with durations of stay longer than 7 months. These results suggest that discharging a patient from the center before their third month of stay or a stay period longer than 7 months does not affect the scores of the depression, anxiety and obsession inventories with any significance (Table 3, Table 4). The significant decrease in the mean scores of the state anxiety inventory is a somewhat expected development, and this may be attributed to the

fact that the state anxiety inventory evaluates how children feel at the very moment they are completing the inventory. It can be assumed that following their 7-month stay at the center; uncertainties and concerns regarding their future and the next place they will live/reside were the main reasons why the depression, trait anxiety and obsession scores of the patients were not affected (i.e. improved) to a statistically significant degree. In a study by Kendall-Tackett KA, Williams LM and Finkelhor D, it was observed that children who have been subject to abuse and neglect exhibited greater depressive symptoms if informed beforehand of the planned duration of their stay at the treatment center and where they will live afterwards. In contrast, this study did not address the exact durations of stay (42). An evaluation of the findings of our study indicated that the mean inventory scores decreased significantly for patients who had stayed at the center for up to 7 months, but past the 7<sup>th</sup> month of stay, no significant decrease or difference was observed in the mean inventory scores. In other words, extending the duration of stay beyond a certain limit had no effect on the inventory scores.

An evaluation of the reasons for admission revealed that 29 (40.3%) of the respondents, the majority, had been admitted for a single reason, while 10 (13.9%) had been admitted for a combination of two reasons, 19 (26.4%) had been admitted for a combination of three reasons, eight (11.1%) had been admitted for a combination of four reasons, four (5.6%) had been admitted for a combination of five reasons and two (2.8%) had been admitted for a combination of six reasons. In order to assess the effect of the number of reasons for admission on the inventory scores, a comparison was made between the scores of those admitted for two reasons or less, and those admitted for a combination of three reasons or more. This comparison revealed no statistically significant differences in the mean admission and discharge scores of the patients depending on the number of reasons for their admission, suggesting that the number of reasons for admission had no effect on the mean inventory scores of the children. This can be attributed to the fact that for an abused and traumatized child, an increase in the number of reasons for the admission does not necessarily mean that the trauma of the child becomes even more severe. In a previous study of girls admitted to treatment and rehabilitation centers for reasons of sexual abuse who were diagnosed with post-traumatic stress disorder, it was observed that experiencing one or more than one trauma did not affect or increase the severity of the symptoms of

the post-traumatic stress disorder.

To ensure a healthy society, it is of critical importance that children who are subjected to abuse and neglect are given the appropriate treatments in treatment and rehabilitation centers; that plans are made concerning the lives and future of these children; that efforts are made to ensure that they can adapt to daily life after leaving the center; that measures are taken to allow them to continue their formal education; and that the necessary approaches are implemented for them to prepare effectively for an occupational life. For this reason, it is both necessary and important that centers that provide such care and opportunities become more widespread in Turkey.

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