

THE CLINICAL CHARACTERISTICS OF DISSOCIATIVE DISORDERS AT ADOLESCENT HEALTH DEPARTMENT, VIETNAM NATIONAL CHILDREN'S HOSPITAL

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To describe the clinical characteristics of dissociative disorders, a cross-sectional study was conducted on 57 adolescent patients diagnosed with dissociative disorder, from December 2021 to June 2023, at the Adolescent Health Department - Vietnam National Children's Hospital. The average age was 13.2 ± 2.62 years old, and the female/male ratio was 1.5/1. Most patients were in rural areas (73.7%), reached puberty (89.5%), had introverted personalities (78.9%), belonged to the group of movement dissociative disorders (43.9%) and dissociative seizures (28.1%). Most clinical conditions were related to psychological trauma (84.2%). Psychological trauma mainly comes from the family and school environment, accounting for 72.5% & 19.6% respectively. The majority of children had conflicting relationships with their parents (68.4%). 43.9% cases showed signs of anxiety, and 38.6% showed signs of depression from mild to severe levels. Dissociative disorders are more common in girls than boys and are mostly related to psychological trauma. Most patients have accompanying symptoms of anxiety and depression. We recommend to limit psychological trauma on adolescents, especially in family & school environment.

Keywords: Clinical characteristics, dissociative disorders, adolescents.

I. INTRODUCTION

Dissociative disorder is a partial or complete loss of the normal integration of memory, the past, a sense of personal identity with immediate sensations and control of body movements. The pathogenesis of dissociative disorders is related to the patient's personality factors and the impact of psychological trauma.¹ The clinical picture of dissociative disorders is very diverse, manifested by many types of symptoms, from mental symptoms to physical symptoms.² Therefore, it has created many difficulties and confusion in the diagnosis, leading to ineffective treatment, and creating a chronic condition. Although there have been improvements in disease diagnosis, misdiagnosis still accounts

for a significant rate.³

Dissociative disorders of children are mainly found in adolescents and especially girls.^{1,4,5} Adolescence is the stage of entering adulthood with physical, psychological and physiological changes and personality formation. During the adolescent period, children face many pressures in life such as social relationships, family relationships, academic pressure, and can easily lead to behavioral and emotional disorders. Dissociative disorders often tend to become chronic and affect children's learning due to frequent medical examinations and hospitalizations.^{3,5,6} In children, early diagnosis and proper treatment will help patients integrate into the community timely, and limit the impact on the child's future.

The Adolescent Health Department, Vietnam National Children's Hospital established since 2019 mainly to focus on the diagnosis, treatment

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and counseling adolescents with psychological & psychiatric disorders. However, there no research on dissociative disorders conducted at the Vietnam National Children's Hospital until now. Therefore, we conducted this research to describe: "*The clinical characteristics of dissociative disorders at the Adolescent Health Department, Vietnam National Children's Hospital*". The study provides information about clinical characteristics as well as related family and social factors to guide diagnosis and possibly provide some methods for preventing dissociative disorders in adolescents.

II. RESEARCH OBJECTS AND METHODS

1. Research subject

Selection criteria

All adolescent, including inpatient & outpatients from 10 to 19 years old with a confirmed diagnosis of dissociative disorder according to ICD-10 standards presented for examination and treatment at the Adolescent Health Department – Vietnam National Children's Hospital.⁷

Diagnostic criteria for dissociative disorders: (F44):

(A). Clinical features specific to individual disorders in chapter F44.

(B). There is no evidence of a physical disorder that could explain the symptoms.

(C). Evidence of a psychological evidence appears in the form of a clear temporal association with the traumatic event and problems or disturbed relationships.

Exclusion criteria

- Diagnosed with serious physical or neurological diseases.

- Patients and family members do not agree to participate in the research.

2. Time and location of the research

Conducted at the Adolescent Health Department- Vietnam National Children's Hospital from December 2021 to June 2023.

3. Research method

Research design

Cross-sectional descriptive research.

Sample size

Apply the sample size calculation formula:

$$n = Z^2_{1-\alpha/2} \frac{p(1-p)}{\Delta^2}$$

In which:

n: research sample
 α : statistical significance
 - $(1-\alpha/2)$: reliability coefficient, when $\alpha = 0.05$ (95% confidence), then $Z_{2(1-\alpha/2)} = 1.962$

- p: rate of dissociative seizure symptoms equal to 82.5%.⁸

- Δ : desired accuracy is equal to 10%

According to the formula, the minimum sample size is 40 patients. In fact, we selected 57 patients, ensuring sample size standards.

Steps to conduct the research

Information Collection Techniques

- Directly interview the patient and his family about the patient's history and disease progression at time of examination and treatment at the Adolescent Health Department.

- Detailed and comprehensive clinical examination of psychology, neurology, and internal medicine.

- Conduct psychological tests.

Information collection tools

- Information from direct interviews with patients and families and clinical examinations is recorded according to the designed medical record form.

- Beck Depression Inventory-BDI.⁹

The Beck scale includes 21 items, scored

from 1-21, including 95 small items expressing the subject's emotional state with 4 levels scored from 0-3.

Assessment levels: Total score <14: normal. From 14 to 19: mild depression.

From 20 to 29: moderate depression, ≥ 30: severe depression

- Zung's Self Rating Anxiety Scale (Self Rating Anxiety Scale SAS).¹⁰

The Self Rating Anxiety Scale developed by Zung W.K includes 20 items ranging from 1-20, scored from 1-4 according to 4 levels of duration of symptoms.

Assessment levels: Total score ≤ 40: no anxiety:

- From 41 to 50: mild anxiety
- 51 - 60: moderate anxiety
- 61 - 70: severe anxiety
- 71 – 80: very severe anxiety

Comorbidities (anxiety, depression) were determined when the patient showed clinical signs of anxiety or depression and had a Beck score ≥14 or a Zung score ≥41.

Research variables: assessed at the time of patient visit. Include

- General features:

+) Age: Early adolescents (10-13 years old), middle adolescents (14-16 years old), late adolescents (17-19 years old)

+) Gender: male, female

+) Region (Rural - urban).

+ Cultural level:

+) Puberty.

- Family environment: the level of concern of parent for the patient and the patient's relationship with his parent (conflict - harmony).

- Circumstances in which symptoms appear: related or unrelated to psychological trauma.

- Forms of psychological trauma: in the family, school - friends - social environment. - Accompanying mental disorders: depression, anxiety.

- Assess the patient's personality based on the NEO-PI-R test.

4. Analyze and process data

We analyze and process data by using SPSS 16.0 software. The data in the research are presented in the form n (number) and proportion (%).

5. Research Ethics

Patients and their families are clearly explained the reasons and methods of the research, voluntarily participate in the research and have the right to withdraw from the research. The research is only clinical description, no intervention, so it does not affect patients. Clinical descriptive research assists doctors make accurate diagnoses, provide effective treatment to patients.

III. RESULTS

In this research, we selected 57 patients who met the criteria for inclusion in the research.

Table 1. General characteristics of research subjects

	Characteristic	Quantity (n)	Ratio (%)
Age	Early adolescents	42	73.7%
	Middle dolescents	13	22.8%
	Late adolescents	2	3.5%
	Mean age (X± SD): 13.2 ± 2.62 (years)		
	Age of disease onset (X± SD): 12.18 ± 3.03 (years)		
Sex	Male	23	40.4%
	Female	34	59.6%
Puberty	Already hit puberty	51	89.5%
	Not hit puberty yet	6	10.5%
Area	Rural	42	73.7%
	Urban	15	26.3%

Early and middle adolescents represents the majority, with an average age of 13.2 ± 2.62 years old and the disease onset at 12.18 ± 3.03 (years old)., There are more females than males (59.6% and 40.4%) and the ratio is 1.5/1. Most patients have reached puberty (89.5%). Most patients are in rural areas, accounting for 73.7%.

Table 2. Characteristics of the disease and symptoms

	Characteristic	Quantity (n)	Ratio (%)
Disease type	Dissociative movement disorders	25	43.9%
	Dissociative seizures	16	28.1%
	Mixed dissociative disorder	9	15.8%
	Dissociative sensory disorder	4	7.0%
	Trance disorder	3	5.3%
Appearance	Sudden	50	87.7%
	Gradual	7	12.3%
Related to psychological trauma	Yes	48	84.2%
	No	9	15.8%
Under the influence of suggestion	Yes	47	82.5%
	No	10	17.5%

In our research, patients mainly belonged to the group of dissociative movement disorders and seizures, accounting for 43.9% and 28.1%. Mixed dissociative disorder occurs in 15.8% and dissociative sensory disorder and trance

disorder account for very low rates, only 7.% and 5.3%. Most clinical illnesses appear suddenly (87.7%) and are related to psychological trauma (84.2%) and are influenced by suggestion (82.5%).

Table 3. Some common characteristics of personality, families and psychological trauma

Characteristic		Quantity (n)	Ratio (%)
Personality	Introvert	45	78.9%
	Extrovert	12	21.1%
Relationship with parents	Conflict	39	68.4%
	Harmony	18	31.6%
Psychological trauma	Family environment	37	64.9%
	School environment	10	17.5 %
	Other environment	4	7%
	Unable to identify	6	10.6%

Most children have introverted personalities, accounting for 78.9%, extroverts accounting for 21.1%. The rate of children having conflicting relationships with their parents is 68.4%. We

exploited 51/57 cases of psychological trauma (89.5%) and psychological trauma mainly came from the family and school environment (accounting for 64.9% and 17.5%).

Table 4. Combined psychiatric disorders

Symptoms		Quantity (n)	Ratio (%)
Degree of anxiety	No anxiety	27	47.4%
	Mild	13	22.8%
	Moderate	5	8.8%
	Severe	7	12.3%
	Unassessable	7	12.3%
Degree of depression	No depression	26	45.6%
	Mild	15	26.3%
	Moderate	5	8.8%
	Severe	2	3.5%
	Unassessable	9	15.8%

43.9% of cases showed signs of anxiety and 38.6% showed signs of depression ranging from mild to severe levels. Anxiety and depression disorders are mainly mild.

III. DISCUSSION

Our results are similar to some other international research on dissociative disorders in children and adolescents. While in Berna Pehlivanu's research, the average age of disease onset was 12 years old, that in Gerd Lehmkühl's research was 13.8 years old.^{11,12} However, other Vietnamese studies Nguyen Van Tuan and his colleagues found an average age of 16.3 ± 2.1 years old, with a disease onset of $15.9 \pm 2.1.4$ years old.

Research in children and adults showed that dissociative disorders are more common in women than men.^{3,4,5,6} In our research, there were more girls than boys, with the ratio of 1.5/1. In our similar research in Vietnam, girls accounted for the majority (77.8%) and the female/male ratio was 3.5/1.4. Other research by authors Sujata Sethi and Berna Pehlivanu also showed that women were more common than men, and the female/male ratio was 1.6/1 and 3/1 respectively.^{11,13}

Researches around the world also show that dissociative disorders mainly occur when children reached puberty.^{1,13} In our research, most patients have already hit puberty in 51/57 cases (accounting for 89.5%). Similarly, Nguyen Van Tuan and colleagues found that 88.9% of patients had already hit puberty at the time of the research.⁴ In research on dissociative disorders in all ages (children and adults), author Kuloglu showed that the age of onset of dissociative disorders was mainly from 16 to 25 years old.⁶ Dissociative disorders rarely started in children < 10 years old, specially before 5 years old. Furthermore, the authors believe

that dissociative disorders are functional symptoms related to psychological trauma and the patient's personality. Meanwhile, children under 10 years old have not yet clearly formed their personalities and do not feel psychological trauma deeply.^{11,12,13} Furthermore, some authors believe that the first stage of puberty or the menstrual cycle in women is closely related to an increase in physical symptoms, so the proportion of female patients is higher than that of male patients.^{6,14} According to Spear et al., adolescent females are more vulnerable and more sensitive to stressful events than males, so the disease rate is higher.¹⁵

In researches on dissociative disorders in children and adults, some authors also believe that those disorders are mainly found in rural areas and in low economic income families and social classes.^{2,4,13} In our research, patients were mainly in rural areas (73.7%) while urban areas only 26.3%.

In addition, patients mainly belonged to the group of dissociative movement disorders (43.9%) and seizures (28.1%). Mixed dissociative disorder occurs in 15.8%, while dissociative sensory disorder (7%) and trance disorder account (5.3%) are very low rate. Other researches around the world have also made similar observations to ours. According to author Ertan, the proportion of symptoms in the group of patients with dissociative disorders are seizures (44.1%), sensory symptoms (35.6%) and movement symptoms (8.4%).¹⁶ According to Kuloglu et al., seizures are the most common symptom (41.4%) followed by paralysis.⁶ Meanwhile, Nguyen Van Tuan showed that 88.9% of patients in the research were diagnosed with mixed dissociative disorder, 8.9% were diagnosed with movement dissociative disorder, 2.2% were diagnosed with dissociative seizures.⁴

Research also show that psychological trauma is an important triggering factor in dissociative disorders.^{4,11} Psychological trauma is often found in patients with dissociative disorders.¹⁷ In general, the research also show that the family and school environment have a great influence on the onset and maintenance of dissociative disorder symptoms. Our results show that 51/57 cases exploited psychological trauma related to the onset of dissociative disorder symptoms (89.5%), mainly from the family and school environment. Author Nguyen Van Tuan shows the relationship between dissociative symptoms and psychological trauma.⁴ However, in Tuan's research, work-related psychological trauma was highest (accounting for 48.9%), followed by the family environment (37.8%).⁴ Research by Pehlivan Turk and Kuloglu shows that family conflict is the most common factor in psychological trauma in patients with dissociative disorders.^{6,11} Meanwhile, Krishnakumar's research shows that problems at school such as exam failure, changes in the learning environment, conflicts with classmates, teacher's punishment, & so on are the causes.

Our research results show that 43.9% of cases showed signs of anxiety and 38.6% showed signs of depression from mild to severe level. Anxiety and depression disorders are mainly mild. Our results are also consistent with the observations of Berna Pehlivanu and Vedat Sar. According to Berna Pehlivanu and Vedat Sar, patients with dissociative disorders often have symptoms of depression and anxiety.^{11,18} In the research by author Nguyen Van Tuan, 25.5% of cases showed signs of depression, 13.3% of cases showed signs of anxiety disorders with various degrees.⁴ Therefore, we believe that it is necessary to evaluate the emotional changes of adolescents with

dissociative disorders during treatment. In our study, anxiety disorders and depression were mainly mild. This shows that psychological support for adolescent patients with dissociative disorders is essential to ensure comprehensive care and effective treatment of the disease.

IV. CONCLUSION

The cross sectional study was conducted on dissociative disorders hospitalized at the Adolescent Health Department of Vietnam National Children's Hospital from December 2021 to June 2023. Results released that patients mainly belonged to the group of dissociative movement disorders and dissociative seizures. Dissociative disorders are more common in girls than boys, and are mostly related to psychological trauma. Most patients have accompanying symptoms of anxiety and depression. We recommendation to limit psychological trauma on adolescents, especially in family & school environment.

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