

# A Study of Mental Health in Children with Vitiligo Using Projective Method

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## Abstract

In the article, the authors present the results of their studies of mental health in children with vitiligo. The examination has been performed with 94 pediatric patients involved, using the 'House-tree-man', 'Kinetic drawing of the family' and 'Non-existent animal' projective method. According to the results of the study, it has been found that the mental health of children significantly affects the course of their disease.

**Keywords:** Vitiligo, drawing test, mental health, severity of disease, aggression, low self-esteem.

## Introduction

Vitiligo occupies a special place among dermatological diseases that lead to severe cosmetic defects and mental suffering<sup>2</sup>. Vitiligo is a psychosocial problem that significantly affects the quality of life of patients<sup>1</sup>. Many researchers believe<sup>4</sup> that vitiligo is a serious cosmetic defect that occurs among people with a genetic predisposition to it and emotional disorders, in most cases<sup>3</sup>. Only in 4-7% of patients, vitiligo is combined with autoimmune thyroiditis. According to S. Mattoo, with vitiligo, adaptation and depression disorders are more common (75 and 18%, respectively)<sup>6</sup>. According to E. Colon, 39% of patients with localized foci on the skin face, are diagnosed with depressive disorders, and the same proportion of patients - with generalized anxiety disorder against the background of the manifestation of a skin disease. According to the data of the Research Institute of Dermatology and Venereology of the Ministry of Health of the Republic of Uzbekistan, in recent years, the number of vitiligo patients in our country has increased 3.4 times<sup>8</sup>. Within the territory of the Republic of Uzbekistan, dyschromia

cases account for 21% of all skin diseases, and vitiligo cases account for 15.1%, while in other countries it does not exceed 3-4%. In 70% of cases, the disease primarily occurs at the age of 10 to 25 years. The number of children under 10 years, including newborns and infants, account for approximately 25% of all vitiligo patients<sup>9</sup>. In the midst stage, patients with vitiligo experience severe psycho-emotional imbalance, stress, irritation, socio-psychological discomfort, and inadequacy. Up to 5% of vitiligo patients suffer from severe depressive disorders, and in some cases, have suicidal thoughts. In children with vitiligo, emotional stress, low self-esteem and a deterioration in the quality of life are usually observed, which has negative impact on therapy and the course of their disease<sup>5</sup>.

The purpose of the research has been to assess the mental health of children with various clinical manifestations of vitiligo.

## Materials and Method

We have performed a mental health assessment for 94 children with vitiligo, aged 6 to 16 years, using

drawing tests. For many children, drawing is one of the ways to express their internality. This method makes it possible to assess the mental health and intelligence of children with vitiligo. The drawing tests were the following: 'Nonexistent animal' (NA), 'House-tree-human' (HTH) and 'Kinetic drawing of the family' (KDF). While studying the children's drawings, we took into account the whole drawing process, its details, structure, the features of graphic presentations, the positive or negative assessment of elements drawn by the patients themselves. We also paid attention to the verbal assessment of the drawing process by the children. The practical application of this method is effective due to its information value and the ability to track the dynamics of the children's mental state. During the study, behavioral characteristics such as self-doubt, insecurity, sensibilities, anxiety, fear, conflict, depression, low self-esteem, indecisiveness, problems in interpersonal relationships, lack of sociability, and social interaction difficulties have been revealed.

## Results

During the drawing tests, 24 out of 90 children with vitiligo refused to perform the tasks, referring to a) lack of drawing skill b) discomfort due to the assessment of the drawing by the people present c) unclear purpose of the test proposed. These children were interviewed in confidence and were explained that the purpose of the study was not to evaluate their artistic or creative abilities. After that, they agreed to participate in research. Some children asked for a ruler to draw a straight line. We explained to them that, according to the DTH test conditions, the drawing should be done by only manual means.

The ratio of the drawn picture in relation to a sheet means the psychological significance, value and importance of things, situations or relationships represented - both directly or symbolically - in the DTH drawing. 16 (17.02%) children drew a very small picture with weak lines, which signified a self-distrust and a feeling of inferiority. 21 (22.34%) children drew a picture at the bottom of the sheet, which was an indicator of depressive state.

Analysis of the DTH test in the examined patients has showed the following results. 24 (25.53%) children drew a small house, standing far away, which characterized the feeling of loneliness or rejection of the patients. 13 (13.82%) of children drew a house without doors and windows, which indicated family relationship problems, and difficulties in being confident with their relatives. The chimney of a house with a puff of thick smoke, present in 20 (21.27%) cases, indicated the significant internal psychoemotional stress of children. Thin stream of smoke or the absence of a chimney in 26 (27.65%) cases indicated a feeling of lack of warmth and care at home. Closed windows of the house, drawn by 14 (14.89%) patients, mean alienation, hostility, difficulties in interpersonal relationships within the family. Clouds drawn by 25 (26.59%) children above the house indicated internal anxiety, fears and depression. Drawing details also reflect the level of emotions and intelligence of the patients. 14 (14.89%) children drew a human with a small amorphous head, which indicates their feeling of insecurity and concern about intellectual inadequacy. 8 (8.51%) of the children drew a human with small shoulders, which symbolized their shyness, a sense of their insignificance, and over diligence. An indistinct and pale face in 17 (18.08%) drawings was indicative of fear and insecurity of children. Long arms in 10 (10.63%) cases were a sign of addiction, indecisiveness, the need for a family care and guardianship. As for the trees, we drew attention to such details as a shaded trunk, which meant an internal fear to be alone or hidden aggression. The lowered down tree branches meant the absence of aspirations, reluctance to make an effort, the difficulty in making decisions.

## Discussion

When interpreting the results of the HTH drawing test, it is necessary to take into account the integrity of all the picture details. The presence of only one element does not indicate the presence of a certain psychological feature. According to the recommendations of R.F. Belyauskaite, all the qualitative indicators of the HTH drawing test have been combined into the following symptom complexes: 1) anxiety; 2) insecurity; 3) hostility; 4) depression; 5) self-distrust; 6) aggression; 7) communication difficulties; 8) sense of inferiority.

**Table 1: Symptom complexes of HTH drawing in children with vitiligo**

Indicators	Males (45)		Females (49)		Total (94)	
	Absolute.	%	Absolute.	%	Absolute.	%
Anxiety	13	13.82	16	17.02	29	30.08
Insecurity	9	9.57	16	17.02	23	24.46
Hostility	9	9.57	10	10.63	19	20.21
Depression	8	8.51	13	13.82	21	22.34
Self-distrust	8	8.51	11	11.70	19	20.21
Aggression	14	14.89	17	18.08	31	32.97
Difficulties in communication	9	9.57	10	10.631	19	20.21
Feeling of inferiority	12	12.76	15	15.95	27	28.72

After the analysis of the HTH drawing test, the following symptom complexes of different severity have been found: anxiety (30.08%), insecurity (24.46%), hostility (20.21%), depression (22.34%). The less pronounced symptoms were self-distrust (20.21%), a sense of inferiority (28.72%), aggression (32.97%), communication difficulties (20.21%) (Table 1).

‘Kinetic drawing of a family’ is a type of drawing test that illustrates the subjective situation of children with their family and friends. It helps to find out the children’ relationship with their family members, and how significant they feel in their families, in their own opinion. The method of KDF drawing test makes it possible to identify difficulties in family relationships and emotional problems. 19 (20.21%) children did not draw faces of some their relatives, which means staying in an unhappy relationship and frequent conflicts with them. In 13 (13.82%) cases, the children did not draw themselves in the picture, which means notoriety, difficulties in self-expression in the family. When the children were asked why these or other relatives were absent in the drawing, some of them showed direct aggression towards their brothers, sisters or parents. Other children explained it by excuses: ‘I forgot about him (her)’, ‘There wasn’t enough space’, ‘I find him (her) difficult to draw’. In 19 (20.21%) patients, the drawing did not correspond to its verbal description, In this case, the family situation of the patients was considered as a conflict. If children drew all family members without exception, we paid attention to the size of the children themselves in the

drawing, as well as their family members. The more attention and care is given to the children, the larger or proportional to other details they depicted themselves, and the less significant members of the family were painted small and distorted. We have also noted that in 20 (21.27%) cases, they drew themselves small, which means low self-esteem, insecurity among family members, and a sense of inferiority of the children. In 12 (12.76%) drawings, the children painted some family members fragmented, and the pictures were not integral. This indicates unfavorable family relationships, frequent conflicts, and sometimes hostility between some family members.

Aggressive attitude towards the family, fear towards certain family members has been determined in 29 (30.85%) cases. On the drawing, it was expressed by their isolated position from the family on a piece of paper, separation from the main picture by lines, frequent use of dashed or broken lines and dark colors. Quantitative assessment of KDF was carried out by the following system of symptom complexes: 1) family hostility 2) family conflicts; 3) anxiety; 4) a sense of inferiority in a family; 5) a favorable family situation.

After KDF drawing test, we identified the following main symptom complexes: a sense of inferiority in a family (37.23%), anxiety (25.53%). To a lesser extent, family hostility (26.59%) and family conflicts (30.85%) were present. A favorable family situation has been observed in families of 20 patients (21.27%) (Table 2).

**Table 2: Symptoms of KDF drawing test in children with vitiligo**

Indicators	Males (45)		Females (49)		Total (94)	
	Absolute	%	Absolute	%	Absolute	%
Family hostility	9	9.57	16	17.02	25	26.59
Family conflicts;	13	13.82	16	17.02	29	30.85
Anxiety	8	8.51	18	19.14	24	25.53
Feeling of inferiority in the family	19	20.21	16	17.02	35	37.23
A favourable family situation	9	9.57	11	11.7	20	21.27

The next drawing test is a projective research method - 'Non-existent animal'. This test is based on the theory of the psychomotor development of the children and expresses their psychoemotional state, anxiety and feelings. We invited children with vitiligo to draw a non-existent animal, which they had never seen before, and give it a name. Analyzes of NA drawing tests have been carried out with determining several parameters: position of the picture on the sheet, the central or supporting parts of the animal, the contours, lines of the figure, a positive or negative attitude, matching the animal's name with its image. 17 (18.08%) patients drew a non-existent animal in the lower part of the sheet, which indicates self-distrust and insecurities, depression or indecisiveness. In 13 (13.82%) children, the head was depicted with an open or crossed mouth with a rounded shape, which

means that the children feel anxious and worried. In 23 (24.46%) cases, the head was depicted with horns, and there were claws on the extremities, which meant that the children are prone to self-defense and aggression. In 6 (6.38%) cases, uniformity of animal's legs was noted, which indicates conformity of judgments and a penchant for standards and commonplace. In a verbal survey and objective analysis, all animals were divided into three types: threatened, in need of protection - 26 (27.65%) cases, safe or neutral - 47 (50%) cases, and aggressive or threatening - 35 (37.23) cases. The mental health of patients was determined by the following symptom complexes: 1) irrationality 2) irrationality; 3) depression; 4) fear; 5) deliberation in decision making; 6) self-confidence; 7) feeling of insecurity from others; 8) asthenic feeling; 9) low self-esteem; 10) diffidence;

**Table 3: Indicators of the 'Non-existent animal' drawing test in children with vitiligo**

Indicators	Males (45)		Females (49)		Total (94)	
	Absolute	%	Absolute	%	Absolute	%
Irrationality.	16	17.02	21	22.34	37	39.36
Low self esteem	14	14.89	19	20.21	33	35.10
Oppression	9	9.57	11	11.70	20	21.27
Fear	14	14.89	12	12.76	26	27.65
Deliberation in decision-making	4	4.25	8	8.51	12	12.76
Self confidence	8	8.51	12	12.76	20	21.27
Feeling of insecurity from others	7	7.44	12	12.76	19	20.21
Asthenic feeling	12	12.76	18	19.14	30	31.91
Low self esteem	12	12.76	17	18.08	29	30.85
Diffidence	9	9.57	14	14.89	23	24.46

In NA drawing tests, such symptom complexes as diffidence (41.13%), low self-esteem (30.85%), asthenic feeling (31.91%), fear (27.65%), depression (21.27%), feeling of insecurity from others (20.21%) have been revealed to a lesser extent (Table 3).

An analysis of the results of drawing tests gives information about the mental health of children with vitiligo in a chronic somatic disease. The symptom complexes noted above form either the result of the vitiligo process, or a trigger factor leading to the manifestation or exacerbation of dermatosis.

**Table 4: The severity of general - school, self-esteem, interpersonal - anxiety of children with vitiligo**

Level	Males (45)		Females (49)		Total (94)	
	Absol	%	Absol	%	Absol	%
Extrinsic	4	4.25	4	4.25	8	8.51
Normal	9	9.57	15	15.95	24	25.53
Insignificantly increased	16	17.02	15	15.95	31	32.97
Increased	17	18.08	20	21.27	37	39.36
Very high	2	2.12	3	3.19	5	5.31

In order to determine the level of anxiety, we used the anxiety scale developed by A. M. Prikhozhan [11]. Types of anxiety included three types of situations: 1) school anxiety (incidents related to classmates, school, and communication with teachers); 2) self-assessment (situations actualizing self-identification); 3) interpersonal (situations that depend on the communication of children in the family, with their parents). After analyzing the general level of anxiety of the studied children of children with vitiligo in children, we have determined (Table 4) that anxiety was present in the majority of children - in 84 (89.36%) cases, as a relatively stable personality formation, with various degrees of severity. Patients with a high and very high level of anxiety are considered a risk group, and in our case, their number was 35 (37.23%). the cause of the occurrence in patients with such anxiety can be due to low self-esteem, traumatic for the child’s psyche, real ill-being caused by the chronic course of the disease, problems in interpersonal situations, difficulties in school and family situations, an illness unnatural for healthy children, accompanied by great experiences. Children with increased timidity complain about the difficulty of adaptation in society, a decrease in the stability and effectiveness of education. Due to the long and frequent periods of treatment of children with vitiligo, their rhythm of life is violated, they lag behind their peers, and refuse to attend school for some time. All these factors increase emotional stress and create a kind of vicious circle. Some patients have a higher level of anxiety.

These children can be attributed to a risk group related to the development of more pronounced forms, since negative situations associated with the disease, with its vivid clinical manifestations, relapses, will increase emotional distress and psychological discomfort. The number of such patients in our studies was 29 (28.72%).

**Conclusions**

Our studies prove the important role of the mental health of patients, which depends both on their personal qualities and the influence of the surrounding society, as well as the course, development, and prognosis of the disease. Timely identification and elimination of these psych emotional factors, correction of the psychological state of patients will undoubtedly contribute to improving the quality of life and will have a beneficial effect on the course of vitiligo.

**Ethical Clearance:** No ethical approval is needed.

**Source of Funding:** Self

**Conflict of Interest:** Nil

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