

## Research Article

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# Cognitive and behavioral factors in the chronification of suicidal behavior

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**RELEVANCE** Suicide is one of the leading causes of death worldwide. Suicidal behavior is a complex phenomenon that includes suicidal thoughts, intentions and actions; and those actions do not always lead to death, but often turn into chronic suicidal behavior. The study of the factors in chronification of suicidal behavior is necessary for the development of evidence-based programs for the prevention of repeated suicide attempts.

**AIM OF STUDY** is to compare cognitive and behavioral strategies for coping with stress in patients with single suicide attempts and chronic suicidal behavior.

**THE HYPOTHESIS OF THE STUDY** is that in patients with repeated suicide attempts, destructive cognitive and behavioral strategies for coping with stress are more pronounced.

**MATERIALS AND METHODS** The study included 119 patients treated at the somatopsychiatric and toxicology departments, 60 patients after the primary suicide attempt, 59 – after repeated ones. Patients were asked to complete the following procedures: Beck Depression Inventory (Beck, 1961; N.V. Tarabrina, 2001), Beck Anxiety Inventory (Beck, 1961; Tarabrina, 2001), Rumination Scale (Treynor W. et al., 2003; adaptation by O.D. Pugovkina et al., 2021), Alexithymia Scale (Toronto Alexithymia Scale G.J. Taylor et al., 1985; adaptation by Starostina E.G. et al. 2009), COPE Inventory (Ch.S. Carver et al., 1989; adaptation by P.A. Ivanov and N.G. Garanyan, 2013).

**RESULTS** Patients after repeated suicide attempts, compared with patients who made the first attempt, are more likely to be diagnosed with borderline personality disorder, have more pronounced symptoms of depression and suicidal readiness, higher rates of ruminative thinking and alexithymia – reflecting a deceptive cognitive style, – as well as indicators of the use of destructive behavioral strategies for coping with stress in the form of various types of avoidance behavior.

**Keywords:** suicidal behavior, repeated suicide attempts, chronic suicidal behavior, borderline personality disorder, alexithymia, coping strategies, ruminations

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DIF – difficulty identifying feelings

DDF – difficulty describing feelings

EOT – externally oriented thinking

## INTRODUCTION

Suicide is one of the leading causes of death worldwide. Suicidal behavior is a complex phenomenon that includes suicidal thoughts, intentions and actions; and these actions do not always lead to death, and often develop into chronic suicidal behavior. Currently, patients hospitalized after a suicide attempt receive insufficient psychological assistance (psychoeducation, understanding the history of their disease and how to work with it, understanding their further routing after discharge from hospital), which often leads to a lack of further treatment and repeated suicidal acts. It is important to consider that each suicide attempt increases the risk of

recurrence and, ultimately, leads to death. Today, the task of studying the complex system of factors that lead to suicidal actions and their chronicity is quite acute [1, 2].

It is known that depression and other mental disorders are important factors in suicide attempts. Repeated suicide attempts are more often made by patients suffering from personality disorders [3;4]. For this group of patients, suicidal behavior is a maladaptive way of coping with stress, extremely strong emotions, derealization and conflicts with others [5]. With chronic suicidal behavior and repeated attempts at self-harm, most patients may experience symptoms of depression or anxiety, which leads to the formation of a vicious circle of suicidal behavior. Patients do not develop constructive problem-solving skills, including seeking help and support, which increases the feeling of helplessness and hopelessness, loneliness and social isolation [6, 7, 8].

UK researcher Edward Watkins is known as the author of cognitive behavioral psychotherapy for depression, focused on working with ruminative thinking, a factor in the chronicity of depression [9]. The method of psychotherapy he developed is distinguished by a high level of evidence of theoretical foundations which are based on experimental studies of various types of thinking - constructive and non-constructive. The constructive style is characterized by a focus on specific problem situations and commitment to developing ways to solve them. The non-constructive style is distinguished by its global and evaluative nature, self-blame and self-criticism. Maladaptive personality traits such as perfectionism (lack of room for error, unrealistically high goals and demands on oneself) in combination with a lack of problem-solving skills are important factors in the formation of ruminative thinking as a destructive coping cognitive style [10]. This style is also characterized by avoidance of solving problems, which inevitably leads to their accumulation, increased feelings of helplessness and, ultimately, symptoms of depression and its chronification through a vicious circle mechanism [11]. Repeated suicidal thoughts increase cognitive vulnerability to suicidal behavior by lowering the threshold required to trigger a suicidal episode, and as new attempts occur, pain thresholds decrease and habituation to experiencing episodes of self-destruction occurs [12].

According to O'Connor's integrated motivational-volitional model of suicidal behavior, it is ruminative thinking that plays an important role in the transition from suicidal thoughts to serious intentions [13]. O'Connor's model includes three phases of suicidal behavior: pre-motivational, motivational and volitional, which reflects the relationship between background factors and trigger events that "trigger" suicidal thoughts, turning into intentions up to a suicide attempt in a state of hopelessness - feelings of being "trapped." It is ruminative thinking, combined with undeveloped problem-solving skills, that is the main mechanism of the motivational phase and an important target for the prevention of suicidal behavior. Intention is determined by the feeling of being "trapped," when suicidal behavior is seen as the only possible solution to a problem situation. Thus, ruminative thinking in combination with other maladaptive coping strategies can create a feeling of being "trapped" and contribute to its chronicity as a destructive strategy for resolving the difficulties that have arisen [14; 15].

O'Connor and colleagues, examining the difference between adolescents who attempt suicide and adolescents who have suicidal ideation, documented that it was the components of the volitional phase (i.e., experience of self-harm in the family, among friends, and the presence of such a trait as impulsivity) of stress that distinguish between these two groups [16]. Marsha Linehan also views suicidal behavior as a destructive strategy for overcoming difficult emotional states, due to the lack of effective ways to cope with life's difficulties [17].

Another important risk factor for suicide is such a characteristic of the cognitive-affective sphere as alexithymia - difficulties in understanding feelings, inability to separate feelings from physical sensations that arise during emotional arousal; difficulty communicating feelings to others; insufficiently developed imagination process and cognitive style focused on primary attention to external events [18]. A high level of alexithymia leads to difficulty communicating to others about a negative emotional state and, as a result, an inability to seek help from them when it is needed, a lack of emotional release and a constant accumulation of negative emotions, which, in turn, increases the likelihood of sudden emotional outburst [19]. A high level of alexithymia is associated with a poor emotional self-regulation and undeveloped skills for constructive problem solving, which contributes to the accumulation of problems, inability to understand other people and establish emotional contact with them [20], and ultimately to a feeling of hopelessness and an increased risk of suicidal behavior [21].

The **aim of the study** was to compare the indicators of ruminative thinking and alexithymia, as well as maladaptive behavioral strategies for coping with difficulties in patients with single suicide attempts and chronic suicidal behavior.

The **research hypothesis** is that patients with repeated suicide attempts have higher rates of ruminative thinking, alexithymia, and maladaptive behavioral coping strategies than patients after the first suicide attempt.

## **MATERIAL AND METHODS**

The study involved patients (n=119) undergoing treatment in the toxicological and somatopsychiatric department for surgical patients of the N.V. Sklifosovsky Research Institute for Emergency Medicine. Exclusion criteria: difficulties in filling out questionnaires due to cognitive characteristics/language barrier, age under 18. The sample was divided into two groups: 1) patients after the first suicide attempt; 2) patients after repeated suicide attempts.

Below is a description of each group.

1) Patients who made a primary suicide attempt. A total of 60 people, of which 34 women (57%) and 26 men (43%). The vast majority of patients were of active working age from 18 to 45 years (91% of the total sample), but more than half of them were not employed: 36 people (60%). A significant majority were divorced or never married - 46 patients (76%), and did not have higher education (70%): 11 people - secondary education; 21 people - secondary vocational; 10 people had incomplete higher education. Also, the majority of patients were intoxicated when making the suicide attempt: 41 patients (68%).

2) Patients who have made repeated suicide attempts. A total of 59 people, of which 43 women (73%) and 16 men (27%). The vast majority of patients were of active working age from 18 to 45 years (92% of the total sample), but more than half of them were not employed: 36 people (59%). 42 people (71%) were single or never married. 41 patients (69%) were intoxicated during the suicide attempt. The majority of patients (83%) did not have higher education: 17 people had secondary education; 25 people - secondary vocational; 7 people had incomplete higher education.

The groups did not differ statistically from each other in gender and age.

To assess the severity of symptoms of anxiety and depression, we used:

1. The Beck Depression Inventory (Beck, 1961; Tarabrina, 2001) [22], aimed at assessing the severity of depressive symptoms.
2. The Beck Anxiety Inventory (Beck, 1961; Tarabrina, 2001) [22], aimed at assessing the severity of anxiety symptoms.

To assess the severity of maladaptive cognitive styles and behavioral strategies as factors in the chronicity of suicidal behavior, we used:

1. The Ruminative Response Scale (Treynor W., Gonzalez R., Nolen-Hoeksema S., 2003; adaptation by O.D. Pugovkina et al., 2021) [11], aimed at assessing the tendency to ruminative thinking and including 4 subscales: 1) "Anergy" - a tendency to fixate attention on one's depressive symptoms; 2) "Search for global explanations" - cyclical processes of negative selection of information, devoid of specific concrete content; 3) "Analysis" - the tendency to analyze past negative experiences for a long time; 4) "Experience of loneliness" - constantly thinking about and experiencing one's loneliness.

2. Alexithymia Scale (Toronto Alexithymia Scale or TAS-20 - G.J. Taylor et al., 1985; adaptation by E.G. Starostina et al. 2009) [18], aimed at diagnosing difficulties in recognizing and expressing feelings and including 3 subscales: 1) "Difficulties identifying feelings" (DIF) - reflects the presence of difficulties in recognizing one's own emotional state; 2) "Difficulty describing feelings to other people" (DDF) - reflects the difficulties associated with discussing emotional states with other people; 3) "Externally oriented (external) thinking" (EOT) - reflects a cognitive style oriented towards external stimuli.

3. The COPE Inventory (H.C. Carver, M.F. Scheier, J.K. Weintraub, 1989; adaptation by P.A. Ivanov and N.G. Garanyan, 2013) [23], aimed at diagnosing productive and unproductive coping strategies and including 15 scales: 1) positive redefinition of the event and personal growth (perceiving the stressor in a positive light and overcoming it); 2) mental avoidance (involvement in various activities to distract from stressful effects); 3) focusing on emotions and ventilating them (concentration on experiences and expression of feelings); 4) use of instrumental social support (search for additional information, advice, help); 5) active coping (active actions to overcome a stressful situation); 6) denial (refusal to believe that the stressor actually exists); 7) religious coping (appeal to God, prayers); 8) use of humor; 9) behavioral avoidance (refusal of any actions to overcome the stressor); 10) self-restraint (preventing hasty actions); 11) use of emotional social support (seeking consolation, empathy, understanding); 12) use of psychoactive substances (alcohol and drugs); 13) acceptance (accepting the

reality of a stressful situation without taking active steps to overcome it); 14) inhibition of all other activities (postponing all other activities to fully concentrate on the problem); 15) coping planning (thinking about the steps that should be taken to solve the problem).

Statistical processing was carried out using the SPSS Statistics 27.0 for Windows package. The Mann–Whitney U test was used to examine differences in the severity of rumination, alexithymia, and maladaptive coping strategies in the groups of patients with primary and repeated suicide attempts.

## RESEARCH RESULTS

The patients used different methods to attempt suicide.

Table 1 presents data on the relationship between different methods of deliberate self-harm in patients with one and repeated suicide attempts.

Table 1

### Methods of intentional self-harm in persons with repeated suicide attempts and a primary suicide attempt

Methods of self-harm	Primary suicide attempt, n=60	Repeated suicide attempts, n=59
Stab wounds of the extremities (X78)	29 (48%)	38 (64%)
Stab wounds to the head, neck, chest and abdomen (X78)	5 (8%)	7 (12%)
Strangulation asphyxia (X70)	2 (3%)	0 (0%)
Self-poisoning (X61–X69)	17 (28%)	14 (24%)
Jumping in front of moving object (X81)	1 (2%)	0 (0%)
Gunshot wounds (X72–X74)	1 (2%)	0 (0%)
Bite (X83)	1 (2%)	0 (0%)
Self-harm by flames (X76)	1 (2%)	0 (0%)
Jumping from height (X80)	3 (5%)	0 (0%)

As can be seen from Table 1, patients after the first suicide attempt have more diverse methods of self-harm: from stab wounds to the forearms to jumping from height. In patients after repeated suicide attempts, there are 3 types of self-harm (stab wounds of the extremities; wounds to the head, chest, neck and abdomen; self-poisoning). Patients after repeated and multiple suicide attempts more often self-inflicted stab wounds to the extremities (forearms) (64%) and stab wounds to the neck, chest and abdomen (12%) than patients after a primary suicide attempt (48% and 8%, respectively).

Table 2 presents data on the relationship between various clinical diagnoses in individuals with the primary attempt and repeated attempts at suicide.

Table 2

### Psychopathological disorders in patients with repeated suicide attempts and a primary suicide attempt

Psychiatric diagnosis	Primary suicide attempt, n=60	Repeated suicide attempts, n=59
Affective disorders: F32	16 (26.7%)	18 (30.5%)
Adjustment disorder F43	10 (16.7%)	4 (6.7%)
Schizophrenia and other acute psychoses: F20, F21	5 (8.2%)	4 (6.7%)
Personality disorders (F60, F60.2, F10.71, F19.7)	28 (46.7%)	33 (56.1%)
Organic diseases of the central nervous system	1 (1.7%)	0 (0%)

The group with repeated suicide attempts is more than half as likely to be diagnosed with adjustment disorder (16.7% and 6.7%, respectively), and is also approximately 10% more likely to be diagnosed with personality disorder (56.1 % and 46.7% respectively).

Table 3 shows data from the Beck Depression Inventory on the severity of depression symptoms in the two compared groups.

Table 3

**The severity of depression symptoms during a primary suicide attempt and repeated suicide attempts (Beck Depression Inventory)**

Distribution of patients depending on the number of suicide attempts and symptoms of depression	No symptoms of depression	Symptoms of mild depression	Symptoms of moderate depression	Symptoms of severe depression
Primary suicide attempt, (n=60)	42 (70%)	5 (8.3%)	8 (13.4%)	5 (8.3%)
Repeated suicide attempts, (n=59)	28 (47.5%)	5 (8.5%)	9 (15%)	17 (29%)

As can be seen from Table 3, patients after repeated suicide attempts were almost four times more likely to report symptoms of severe depression than patients after a primary suicide attempt (29% and 8.3%, respectively). Patients after the first suicide attempt more often noted the absence of depressive symptoms (70% and 47.5%, respectively).

Table 4 shows data from the Beck Anxiety Inventory regarding the severity of anxiety symptoms in the two compared groups.

Table 4

**The severity of anxiety symptoms during a primary suicide attempt and repeated suicide attempts (Beck Anxiety Inventory)**

Distribution of patients depending on the number of suicide attempts and symptoms of anxiety	Insignificant level of anxiety, n/%	Average level of anxiety, n/%	High level of anxiety, n/%
Primary suicide attempt, (n=60)	46 (76.7%)	12 (20%)	2 (3.3%)
Repeated suicide attempts, (n=59)	39 (66.1%)	13 (22%)	7 (11.9%)

As can be seen from Table 4, patients after more than one suicide attempt are slightly more likely to report a high level of anxiety than patients after a primary suicide attempt (11.9% versus 3.3%). In both groups, an insignificant level of anxiety is most often noted.

Table 5 shows data on subjective assessment of a degree of readiness to commit suicide again in patients of the two groups under consideration.

Table 5

**Presence of suicidal thoughts and intentions during a primary suicide attempt and repeated suicide attempts (Beck Anxiety Scale)**

Distribution of patients depending on the number of suicide attempts and the severity of suicidal thoughts and intentions	Primary suicide attempt, (n=60)	Repeated suicide attempts, (n=59)
I have no thoughts of committing suicide, n/%	45 (75%)	32 (54.2%)
I have thoughts about committing suicide, but I don't do this, n/%	10 (16.7%)	13 (22.1%)
I would like to commit suicide, n/%	3 (5%)	10 (16.9%)
I would commit suicide if given the opportunity, n/%	2 (3.3%)	4 (6.8%)

As can be seen from Table 5, one or another degree of suicidal readiness (thoughts, intentions, readiness for an opportunity) is almost twice as common in patients with repeated suicide attempts - 45.8% versus 25% after a single attempt.

Thus, the data presented in Tables 3–5 indicate an increase in the severity of psychopathological symptoms with chronic suicidal behavior.

Let us consider the severity of certain cognitive styles in each of the groups under consideration (Table 6).

*Table 6*

**The severity of rumination in patients after a primary suicide attempt and repeated suicide attempts (Rumination Scale)**

Ruminations	Mean (standard deviation)		Mann–Whitney U	Significance level
	Suicide in the past			
	No (n=60)	Yes (n=59)		
Total score	38.47 (17.55)	50.21 (17.54)	1087	<b>0.008</b>
Energy	12.26 (5.36)	16.28 (5.95)	1026	<b>0.002</b>
Search for global explanations	9.16 (4.14)	11.35 (4.66)	1232	0.069
Analysis	5.82 (2.24)	6.77 (2.12)	1267	0.105
Experience of loneliness	5.38 (2.41)	7.16 (2.64)	1033.5	<b>0.003</b>

As can be seen from Table 6, statistically significant differences between the two groups were revealed both in the total score and in the subscales of the ruminative thinking questionnaire: “Anergy” and “Experience of loneliness.” These scales reflect phenomena such as fixating attention on one's depressive symptoms and constantly thinking about and experiencing one's isolation from others. The obtained data correlate well with E. Watkins’ concept which proves the destructive nature of ruminative thinking as a factor in the chronicity of depression, as well as with R. O’Connor’s concept of ruminative thinking as a risk factor for suicide [14, 24, 25].

Data from the Alexithymia Questionnaire, which measures the severity of a maladaptive cognitive style contributing to disturbances in emotional regulation, are presented in Table 7.

*Table 7*

**The severity of alexithymia indicators during a primary suicide attempt and repeated suicide attempts (Alexithymia Scale)**

Alexithymia	Mean (standard deviation)		Mann–Whitney U	Significance level
	Suicide in the past			
	No (n=60)	Yes (n=59)		
Difficulty identifying feelings	15.2 (6.94)	18.93 (8.47)	1245.0	<b>0.022</b>
Difficulty describing feelings	12.11 (5.09)	14.60 (5.29)	1196.0	<b>0.010</b>
Externally oriented thinking	17.56 (5.61)	17.87 (4.53)	1631.5	0.904
Total score	46.43 (12.06)	52.14 (14.9)	1260.5	<b>0.028</b>

As can be seen from Table 7, statistically significant differences were revealed both in the total score of the “Alexithymia” scale and in two subscales: “Difficulty identifying feelings” and “Difficulty describing feelings to other people.” There are no differences in the tendency to focus attention on external stimuli and situations rather than on internal states. Difficulties identifying feelings and describing them to other people are prevalent in individuals with repeated suicide attempts. They lead to the accumulation of negative emotions, disruption of emotional self-regulation and impulse control, which, in turn, increases the risk of repeated suicidal acts.

Finally, Table 8 presents differences in the choice of behavioral strategies for coping with stress in patients with single suicide attempts and chronic suicidal behavior.

Table 8

**The severity of various coping strategies in patients after a primary suicide attempt and repeated suicide attempts (COPE Inventory)**

Behavioral Strategies	Mean (standard deviation)		Mann-Whitney U	Significance level
	Suicide in the past			
	No (n=60)	Yes (n=59)		
Positive redefinition	9.83 (3.73)	10.88 (2.58)	1495.5	0.464
Psychological avoidance	8.15 (3.18)	9.90 (2.37)	1147.0	<b>0.06</b>
Focus on emotions	8.13 (3.32)	9.55 (2.87)	1334.5	0.099
Using social support tools	9.48 (3.74)	10.62 (2.98)	1419.5	0.244
Active coping	10.28 (3.80)	10.78 (2.38)	1513.5	0.528
Denial	6.5 (2.79)	7.83 (2.38)	1285.0	0.052
Religious doping	5.95 (3.64)	6.33 (3.4)	1594.0	0.854
Humor	7.02 (3.2)	8.72 (3.03)	1245.0	<b>0.030</b>
Behavioral avoidance	6.05 (2.69)	7.81 (2.49)	1121.5	<b>0.004</b>
Self-restraint	9.07 (3.12)	9.98 (2.12)	1512.0	0.520
Using emotional social support	9.93 (3.66)	10.71 (2.8)	1591.5	0.853
Substance use	6.05 (3.43)	7.78 (3.64)	1258.5	<b>0.033</b>
Acceptance	9.47 (3.44)	10.81 (2.5)	1405.0	0.211
Inhibition	8.67 (3.25)	9.21 (1.99)	1558.5	0.707
Coping planning	10.25 (3.74)	10.67 (2.65)	1608.5	0.927

As can be seen from the table, statistically significant differences between the groups are noted in such stress coping strategies as behavioral and psychological avoidance, denial, substance use and humor. The level of significance refers to differences between the groups with similar behavioral strategies. These styles of coping with stress relate to the avoidant style of behavior - strategies of denying the problem, behavioral avoidance of solving it, and strategies of focusing on negative emotions (ventilating emotions), which is similar to rumination. The "Humor" subscale indicator has a statistically significant difference between the groups, which may indicate the avoidant style of coping with stress - distancing in the form of humor, often black, instead of looking for ways to solve problems. The avoidant coping style prevents solving problems, leads to their accumulation, feelings of helplessness and hopelessness, which can increase the risk of repeated suicide attempts.

#### THE DISCUSSION OF THE RESULTS

Thus, with repeated suicide attempts and chronic suicidal behavior, psychopathological symptoms increase in the form of signs of depression, thoughts of repeated suicide and intentions to commit it. These patients are also more likely to be diagnosed with a personality disorder. The initial hypotheses were confirmed: patients with chronic suicidal behavior had higher scores on scales of ruminative thinking and alexithymia, as well as scores on destructive behavioral strategies for coping with stress in the form of avoiding problems and detaching themselves from them. In the absence of constructive cognitive and behavioral strategies for solving problems, feelings of helplessness, hopelessness, loneliness, and social isolation arise [26]. Ruminative thinking (obsessive, repetitive thoughts about failure and loneliness) combined with maladaptive personality traits (perfectionism) can lead to a feeling of being "trapped," hopelessness, and repeated suicide attempts [27; 28]. Also, alexithymia, especially the difficulty identifying feelings and describing them to other people, complicates the process of differentiation and awareness of one's own emotions, which leads to emotional dysregulation and difficulties solving life's problems in which the help of other people is needed [29]. Alexithymia is associated with the accumulation of negative emotions, which at the peak of affect can "break through" into impulsive behavior and provoke repeated suicide attempts. Avoidant strategies for coping with stress (avoiding solving problems, distancing oneself from one's own feelings, using psychoactive substances, alcohol or even humor to reduce

stress) do not lead to solving problems, but to their accumulation. All this together leads to a feeling of hopelessness and repeated attempts to leave the situation by suicide [30].

## CONCLUSION

Based on the data obtained, we can talk about the need to provide psychological assistance to patients after suicide attempts already at the stage of hospitalization in the emergency hospital. The targets of such work are psychoeducation of patients regarding the mechanisms of their difficulties, as well as conducting classes in group and individual formats based on modern methods of providing assistance to patients with suicidal tendencies. Important tasks in the prevention of repeated suicidal attempts are the restructuring of the maladaptive cognitive style, the development of emotional self-regulation and constructive problem-solving skills, which are not always possible to solve during a short stay in the emergency hospital. Therefore, it is important to motivate patients with high suicidal risk to continue working after discharge from the emergency hospital, and their further routing to institutions where they can receive qualified, comprehensive medical and psychological care in a prolonged format.

## FINDINGS

1. Patients with chronic suicidal behavior are more likely to be diagnosed with a personality disorder, have higher rates of depressive symptoms, and are more likely to report persistence of suicidal tendencies. This group of patients tends to use less brutal methods of self-harm, such as self-cutting in the extremities and self-poisoning with psychotropic drugs.

2. In patients with repeated suicide attempts, compared to patients with a single attempt, a maladaptive cognitive style in the form of ruminative thinking is more pronounced (statistically significant differences in both the total score and the subscales of the ruminative thinking questionnaire: “Anergy” and “Experience of loneliness”), and externally oriented thinking (statistically significant differences both in the total score of the “Alexithymia” scale and in two subscales: “Difficulty identifying feelings” and “Difficulty describing feelings to other people”). These scales reflect fixation on negative events of the past and difficulty recognizing one's own feelings and communicating them to other people. Destructive strategies for solving problems in the form of avoidant behavior predominate (statistically significant differences between the groups are noted in such strategies for coping with stress as behavioral and psychological avoidance, denial, substance use, and humor).

3. Important targets for preventing repeated suicide attempts are restructuring ruminative thinking, overcoming alexithymia and developing emotional intelligence, as well as constructive problem-solving skills and strategies for coping with stress. The emergency hospital, where patients are admitted after the suicide attempt, can be considered as the first stage of such prevention, in which psychoeducation, and motivation of patients with a high risk of repeated attempts to continue psychological work after discharge, as well as routing them to institutions where they can receive qualified medical and psychological assistance are especially important.

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