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ORIGINAL PAPER

Suicidal behavior as a result of maladjustment of servicemen to the conditions of military service in Ukraine

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ABSTRACT

Introduction and aim. The purpose of the article is to analyze the peculiarities of suicidal behavior as a result of maladjustment of servicemen to the conditions of military service in Ukraine. The tasks of the article are to identify among militaries: 1) the most significant risk factors for autoregressive and suicidal behavior; 2) the psychological peculiarities of adaptive disorders that may lead to suicide; 3) protective factors against autoregressive and suicidal behavior.

Material and method. To solve the problem of our research, a set of methods was used: theoretical methods – theoretical and methodological analysis of scientific sources, their systematization, classification, generalization; empirical methods – the observation, the interview, a questionnaire, testing, the method of expert assessments. In general 420 militaries were participated in our research. The participants of the 1st stage of the study were 240 militaries in the age 18-25 years old with suicidal and auto-aggressive behavior in anamnesis and one or more attempts of suicide. These militaries were treated in the psychiatric hospital № 1 in Kyiv (Ukraine). At the 2nd stage of the study 180 militaries were participated. They were treated in the Main Military Clinical Hospital (the Center), Kyiv, Ukraine. The research was organized during May–November, 2021.

Results. We investigated that 120 militaries had various forms of post-suicidal encephalopathy, such as acute affective, non-psychotic state. The number of patients with residual psychoorganic pathology was 41 people (34.16%); after poisoning there were 37 people, the number of patients with toxic encephalopathy – 33 people (27.5%); after self-arson – 9 people, there were 4 patients (3.33%) with burn encephalopathy. We identified the following clinical variants of depressive reactions as a result of maladjustment and suicidal attempts: 1) the reaction of disadaptation in combination with neurosis-like disorders (48.9%); 2) the reaction of maladjustment including hypochondriacal inclusions (in 23.4% of cases of respondents); 3) maladaptive reactions with an anxious component were observed in 28.6% of cases.

Conclusion. It was shown that the suicidal behavior of soldiers depended on many external and internal risk factors. We showed protective factors against autoregressive and suicidal behavior.

Keywords. poisoning, post-suicidal encephalopathy, residual psychoorganic pathology, suicides

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Introduction

Recently, there has been a tendency towards increasing of aggression, auto-aggression and various forms of addiction of youth. According to the WHO, among cases of self-injury, including suicide, we can see about 20% of cases having been done by young people.[1]

Suicide is a deliberate, conscious and rapid deprivation of life by the person himself/herself.[2-4] This phenomenon is characterized by three main criteria: 1) the presence of the man's intention to the end of his/her life; 2) the awareness of his/her own actions; 3) a speed.[5,6] There are some actions which do not belong to the sphere of suicidal behavior. They are: 1) accidental or unintentional self-harm; 2) self-harm of persons who could not understand the meaning or consequences of their actions due to a high degree of dementia or severe mental disorder at the time of the act has been presenting; 3) habitual auto-traumatization. It is deliberate self-harm, which is not associated with the idea of death and suicide; 4) habitual long-term use of psychoactive substances, efficiency, inclination to take risks as personally significant ones.[7-10]

Among the various forms of suicidal behavior there are the main ones: 1) antivital experiences; 2) passive suicidal thoughts; 3) suicidal intentions; 4) suicidal wishes.[11-14] The psychological meaning of suicide is shown as: 1) a cry for help; 2) a protest, revenge, punishment of a significant other person; 3) avoidance of punishment or suffering; 4) self-punishment suicide; 5) suicide-sacrifice.[15,16] Relative socio-demographic factors of suicidal behavior are: male gender, loneliness, violation of a professional stereotype, religion (for example, Buddhism). Medical factors of suicidal risk include: 1) depression; 2) a syndrome of alcohol dependence; 3) dependence on opiates; 4) schizophrenia; 5) chronic somatic pathology; 6) physical deformities; 7) HIV-infection; 8) mental disorders; 9) oncological pathology.[17-19]

In many European countries suicide is the leading cause of death of youth, and in addition to suicide many young people commit non-lethal auto-aggressive acts. These acts are found, according to various sources, 10-100 times more often than suicides, although there is no exact information about such auto-aggressive actions. The forms of auto-aggressive activity, its manifestations and socio-psychological predictors, clinical and psychopathological disorders, combined with self-destructive behavior are changed.[20,21] And in this case the ability for socio-psychological adaptation is also changed.[22-24]

If we talk about the statistics of suicides in foreign countries, we've to note that in general each next suicide occurs in the world every 40 seconds. Almost 800000 people committed a suicide every year. At the same time, these figures do not take into account the attempts of suicide, which, according to the WHO, occur approximately 20 times more often than "successful" suicides.[1] Ukraine occupies a rather prominent place in these "black statistics". It is not among the top of ten countries with the highest rates of suicides per capita, but Ukrainian rates are almost twice higher than the world average level. It is mostly because Ukrainian men (not women) kill themselves seven times more often than women do.[25]

Nowadays only 38 of 183 countries, that are the members of the WHO, have "A National Suicide Prevention Program" (this list of countries includes Australia, Israel and the USA). As a result of this program the suicide rate is quite low in these countries. The WHO believes that the process of restricting accesses to the means of doing suicide is one of the most effective measures to prevent suicides.[1]

Scientists[26] call one of the reasons for suicide in Israel "loneliness". This quality leads to depression, anxiety and personnel crises. The authors also emphasize, that loneliness is also understood as the main factor according to psychosomatic disorders, breast cancer, cardiovascular disorders.[26] In other cases loneliness is combined with poor physical and mental health of the person.

There are a number of social, cultural, personal, medical and other prerequisites for the development of psychoemotional maladjustment with such kind of access as auto-aggressive behavior.[27,28] Experts of WHO point out that the frequency of suicide is the most important indicator of problems according to social well-being and public health of the population. Presented statistics of suicides does not correspond to the surrounding us reality at all, because many cases of suicide are not classified as such accidents, but they are seen as cases which belong to other qualifications.[29,30] Experts of WHO believe that the number of suicides having been registered is only the visible tip of so called iceberg.[1] If we look at the reality, we understand that a real data is underestimated by about 20%, and sometimes by 70% in some regions of Ukraine.[31,32] The exceptionally high level of suicides in the Ukrainian army has been repeatedly pointed out in Ukrainian researches. Thus, G.Ya. Pilyagina said that at least half of suicides in Ukraine were committed by soldiers and officers, and this can be the indicator of a severe crisis and complete degradation of moral and psychological climate of the Ukrainian army. In the Ukrainian army from 18% to 50% of all deaths are suicides. The reasons of this fact are in great difficulties of adaptation of recruits (combatants) to the harsh military conditions of life and excessive stress.[33]

The mechanisms of the formation of suicidal behavior of servicemen were highlighted in the scientific literature.[34] There is no suicidal behavior in the pre-positional phase of the person's activity.[35,36] There is a formation of low self-esteem, the person's own worthlessness. The suicidal phase begins during the formation

of suicidal tendencies and continues until the suicide is committed.[37-39] The presuicidal period is characterized by antivital experiences with the denial of the positive meaning of life.[40] Some scientists identified 5 main types of suicide motives: a protest, appealing, avoidance, self-punishment, refusal.[41-42]

After revealing the fact that suicides in the military environment are the main cause of the death of militaries, the attempts were made to resolve this problem. Some researches has found that Ukrainian military command staff, instructors, officers, medical staff and psychologists are unable to detect signs of suicidal behavior among militaries. After having done testing of their knowledge according to this topic it was shown that they could answer only 48% of the questions of proposed questionnaires about the identification of suicidal behavior.[33]

From the time of the development of the armed conflict in the south-east of Ukraine, suicides in the Ukrainian Army became implicit information, and it was reflected in the discussions. These discussions were about a great increasing of the number of suicides in the army of Ukraine. As it was noted, since the beginning of hostilities in the east of the country the Ukrainian army have lost more than 3340 people, from whom which 2394 servicemen were killed directly as a result of hostilities. It means that for every four deaths there is one non-military person having been lost. And from this amount a large number of persons are for suicides. "In the army of Ukraine, the number of which is a quarter of a million people, there are 55 cases of suicides for every 100 thousand people", the UNIAN news agency said.[43]

The media note that these statistics sharply differs for the worse side from similar data of other countries of the world. According to the information of UNIAN, there are only 9-10 suicides per 100000 servicemen in Israel, and also 25-28 cases of suicide of militaries per 100000 servicemen in the United States (in spite of this fact that soldiers of the US are also involved in various military "hot" events).[43]

Thus, the assessment of the risk of suicide among militaries of the Ukrainian army is the urgent state and scientific problem. At the same time, the scientific researches of this problem is in a great degree difficult due to the secrecy of statistical data. In our research we have done the attempt to assess the risk of suicidal behavior of 80 militaries of the Ukrainian army, who were hospitalized into a psychiatric clinic after committing incomplete suicides, using a special questionnaire that includes markers of suicide.[44]

Also the importance of our research we'll explain in such a way. The disorders of adaptation among conscripts at the present time in Ukraine often receive, as we know, a wide public response. This is due to that fact that they are diagnosed when military man defends our Fatherland and because of this reason this study is quite actual nowadays. Disorders of adaptive reactions of young servicemen also affect a number of other important problems: ethical and legal ones, psychological and psychiatric problems, social and general medical ones. In the army the first question which is actualized, it is a question about the prevention of adaptive disorders of recruits. However, the regularities of their occurrence, the development and the course of these deviations, the signs of their earliest manifestations and the methods of their identification – all these factors are not clearly and insufficiently clarified. Adjustment disorders are often associated with suicidal behavior. When we mean military service this problem is much more greater due to the possibility of using firearms and the occurrence of extended suicides or homicides. Predicting of suicidal behavior is one of the key tasks of the medical and psychological services in the army. However, when there are some disorders of adaptation, suicidal behavior is the most difficult to predict and its diagnostic criteria still need to be developed.

Aim

The purpose of the article is to analyze the peculiarities of suicidal behavior as a result of maladjustment of servicemen to the conditions of military service in Ukraine. The tasks of our research are to identify among militaries: 1) the most significant risk factors for autoregressive and suicidal behavior; 2) the psychological peculiarities of adaptive disorders that may lead to suicide; 3) protective factors against autoregressive and suicidal behavior.

The object of our research is the suicidal behavior of servicemen during their military service in the Ukrainian army. The subject of this research is the predictors of such behavior of these militaries.

The hypothesis of our research

1. Personal qualities and traits of the character play a leading role in the formation of suicidal behavior.

2. Internal mental tension accumulates gradually, combining heterogeneous negative emotions. They are superimposed on one another, concern is replaced by anxiety, and anxiety, in turn, – by hopelessness. Internal suicidal behavior includes suicidal thoughts, representations, experiences and even intentions.

3. Despite the fact that internal factors have been formed from early childhood, the recruits are greatly influenced by the situation of the war, which has taken place in Ukraine, Donetsk and Luhansk regions, since 2014. "The war situation" means moral, physical and psychological overload, uncertainty of the military situation, instability of the political situation in Ukraine, various criteria for assessing this situation (feelings about recruits' families, about their immediate future,

attitude to self-aggression in general and suicide in particular).

4. Suicidal behavior was a complex phenomenon caused by a variety of motives directed on realizing different changes in the behavior of "significant other people" or alleviating (interrupting) severe mental and/or physical suffering of the person. The consequences of suicidal acts are experienced as severe stress not only for the military servicemen themselves, but also for their relatives and specialists who provide them with assistance.

Material and methods

Ethical approval

The ethical examination of the conducted empirical research was carried out and it was approved by the Committee on Ethics of Scientific Researches of the Public Organization "National Academy of Sciences of Higher Education of Ukraine", protocol № 12, dated from the 14th of December, 2021.

Participants

In general 420 militaries were participated in our research. There were different participants at the 1st and the 2nd stages of the study.

The participants of the 1st stage of the study were: 240 militaries in the age 18-25 years old (the average age is 20±0.5 years old) with suicidal and auto-aggressive behavior in anamnesis and one or more attempts of suicide. These militaries were treated in the psychiatric hospital № 1 in Kyiv (Ukraine). At this stage all respondents were included into one experimental group.

These militaries were sent for inpatient treatment by the military commissariats of Kyiv to resolve the issue of fitness for military service. All soldiers have being served in the army in the combat zone of Ukraine (Donetsk and Lugansk regions). All these militaries were participated in hostilities in Donetsk and Lugansk in the south-east of Ukraine. They all were included by us into experimental group, which was formed by the help of method of randomization. The 1st stage of the study was organized in May–June, 2021.

The place of organizing the 2nd stage of the experiment was the Main Military Clinical Hospital (the Center), Kyiv, Ukraine. 180 militaries were studied. At the 2nd stage of the study all respondents were distinguished into experimental and control groups. From them there are: 120 conscripts with adaptive disorders, suicidal thoughts and attempts (experimental group) and 60 conscripts without adaptive disorders (a control group). All these people agreed to participate in our research. All recruits who were the respondents in our research had been men in the age 18-22 years old. We organized this stage of the study in July–November, 2021.

In general the research was organized during May–November, 2021. We have followed the main ethical standards of providing the empirical research. Ethical principles were followed in the process of conducting the empirical research: the principle of voluntary consent; the principle of minimizing risks for participants; the principle of confidentiality; the principle of informing participants about the content of the research; the principle of mandatory documentation of the stages and the results of the research; the principle of reliability of methodical instruments of the research having been conducted; the principle of validity of research data processing.

Research methods and techniques

To solve the problem of our research, a set of methods was used, the choice and combination of which have been determined by the subject, the purpose and the objectives of this research:

- theoretical methods – theoretical and methodological analysis of scientific sources and available according to the problem of our research psychological approaches: their systematization, classification, generalization;
- empirical methods – the observation, the interview, a questionnaire, testing, which have been used for a deeper, holistic research of the structure of psychological disadaptation of adaptive disorders of servicemen.

The observation was carried out at the Main Military Clinical Hospital (the Center), Kyiv, Ukraine. The type of the observation was included one, when the researcher acted directly as a participant in the treatment process (as a psychiatrist), during which we conducted our empirical research. The purpose of our observation was to know exactly about the type of depressive reactions of combatants according to their reasons for suicides.

We used the interview method in order to identify the factors of suicidal ability of combatants. We asked the respondents the following questions:

- How do you try to react to stressful situations in your life – emotionally or rationally?
- Does your family have certain family (or collective) traditions for solving complex, conflicting problems through auto-aggression?
- Has a history of suicides been diagnosed in your family?
- Have you ever felt an unreasonable or excessive sense of guilt?
- Have you in certain cases shown a dominant willingness to «sacrifice» yourself for the sake of satisfying the interests of others?
- Do you have a tendency to perceive even the least unpredictable changes in your life as quite undesirable ones?
- Have you shown in certain cases the inability to see a life in all its diversity?
- In what cases do you experience such kind of irritable-depressive attitude to life?

- In what cases do you demonstrate emotional expressiveness instead of emotional restraint?

- Do you feel a tendency to fixate on problems and to look for a way out of a difficult situation?

- Are you often dissatisfied with yourself?

- Are you able to assess yourself as a loser?

- Is it typical for you to perceive life as a routine, monotonous and joyless process?

- Do you often feel powerless and hopeless (lack of meaning in life)?

- In what cases do you feel unable to get pleasure from any events?

- In what cases do you feel like a victim of uncontrollable circumstances?

Interviews and observations were organized by one of the authors of this article, who worked as a psychiatrist at the Main Military Clinical Hospital (the Center), Kyiv. This psychiatrist gave informed consent of combatants to participate in this research.

For the each stage of our research we will identify and specifically describe specific methods of empirical research according to the aim of this stage. For example, to assess mood and mental state of the person we used the test "Well-being, Activity, Mood".[45] Personal characteristics and peculiarities of interpersonal relations were determined using the MMPI questionnaire and Multivariate questionnaire 16-PF by the R.B. Cattell.

The adaptive resources of military servicemen were assessed by measuring stress resistance and social adaptability (Holmes and Rage method), as well as using the complex multifactor test "Adaptability". Multilevel personal questionnaire "Adaptability"[46] (165 questions) has the aim to study various aspects of adaptation. This test includes the following scales: "Neuropsychic stability" (NS), "Personal adaptive potential" (PAP), "Communicative skills" (CS), "Moral normativeness" (MN) and "Correction scale" (C). The basic scale of the test is "Personal adaptive potential". It contains information about behavioral regulation and communicative potential of a person and allows him/her to differentiate people according to the degree of his/her resistance to the effects of psychoemotional stressors. These questionnaires helped us to show protective factors against autoregressive and suicidal behavior.

For the purpose of statistical data processing of the empirical results of our research we used the procedure of the exploratory factor analysis (computer package of statistical programs "Statistica" by StatSoft: Version 12.5.192.7 (2015, Dell, Round Rock, Texas, USA).

The 1st stage of the study

The purpose of the 1st stage of our research: to identify and do comprehensive assessment of clinical and socio-psychological predictors of suicidal and auto-aggressive behavior of persons of pre-conscription and conscription age. These predictors will help us to develop measures with the aim of reducing the risks of auto-aggressive behavior.

To achieve this goal, the following tasks were set:

- to determine the clinical structure of psychopathological disorders, taking into account the diagnostic criteria of "International Statistical Classification of Diseases and Related Health Problems. 10th Revision (ICD-10)";[47]

- to provide a comprehensive assessment of biological and social-situational factors that influence the formation of suicidal and auto-aggressive behavior of militaries in the Ukrainian army.

Material and methods of the 1st stage of the study

Clinical and diagnostic qualification of revealed mental pathology was carried out on the basis of "International Statistical Classification of Diseases and Related Health Problems. 10th Revision (ICD-10)".[47] The reliability of the results having been obtained was determined by the help of Fisher multifunctional statistical criterion (F-criterion) and by use of t-criterion of Student.

The 2nd stage of the study

At the 2nd stage of our research conscripts were examined. The purpose of this stage of the study is to identify among militaries the psychological peculiarities of adaptive disorders that may lead to suicide; to show protective factors against autoregressive and suicidal behavior.

Material and methods of the 2nd stage of the study

The methods of experimental psychological research were selected according to its tasks. So, to assess mood and mental state of the person we used the test "Well-being, Activity, Mood".[45] Personal characteristics and peculiarities of interpersonal relations were determined using the MMPI questionnaire and Multivariate questionnaire 16-PF by the R.B. Cattell. With the help of these tests we identified among militaries the psychological peculiarities of adaptive disorders that may lead to suicide.

The adaptive resources of military servicemen were assessed by measuring stress resistance and social adaptability (Holmes and Rage method), as well as using the complex multifactor test "Adaptability".[46] Multilevel personal questionnaire "Adaptability" (165 questions) has the aim to study various aspects of adaptation. This test includes the following scales: "Neuropsychic stability" (NS), "Personal adaptive potential" (PAP), "Communicative skills" (CS), "Moral normativeness" (MN) and "Correction scale" (C). The basic scale of the test is "Personal adaptive potential". It contains information about behavioral regulation and communicative potential of a person and allows him/her to differentiate people according to the degree of his/her resistance to the effects

of psychoemotional stressors. These questionnaires helped us to show protective factors against autoregressive and suicidal behavior.

Results

1st stage of the study

The results of our research showed the following phenomenological picture of mental disorders: 20.6% of respondents with autodestructive patterns of the behavior were suffered from emotionally unstable personal disorders; 11.3% had organic affective disorders; 6.3% of people had mild mental retardation; 20.1 of recruits of all identified nosology suffered from anxiety-phobic disorders; neurasthenia, also as asthenic, infantile and schizoid personality disorders. For the period of inpatient psychiatric diagnostics 33.7% of men were considered as mentally healthy persons.

These studies reliably demonstrate the role of numerous factors in the genesis and the development of suicidal and auto-aggressive behavior of young recruits. For each group of disorders the contribution of risk factors is different, mathematical processing of the data made it possible to identify the level of the significance of these factors:

- the development of organic disorders reliably depends (0.7385, $p<0.001$) on perinatal pathology, the presence of pathologically burdened heredity, also the presence of craniocerebral trauma;
- for the development of personal disorders the main were social indicators with high values of such factors as upbringing in disharmonious families, conflicts at school, deviations from social norms of the behavior (being brought to the police, convictions, addictive behavior, alcohol consumption). The last ones are significantly significant (0.7730, $p<0.001$);
- for the development of mental retardation statistically significant (0.7534, $p<0.001$) there is the presence of perinatal pathology, developmental delay of the person.

The results having been obtained, determined the need to strengthen measures of primary prevention directed on preventing the action of adverse social factors that in a great degree contributed to the development of mental illnesses. These social factors can also be the basis for the formation of risk groups and the implementation of preventive measures in these groups (we mean the implementation of measures of secondary prevention). Timely identification of risk factors will reduce the incidence of suicidal and auto-aggressive behavior in people of military age.

2nd stage of the study

Characteristics of mental problems in the study group

Biological risk factors for suicidal behavior

The results of our research of suicides with various forms of post-suicidal encephalopathy were such, as: among the young age who have hung in an acute affective, non-psychotic state (120 people). The number of patients with residual psychoorganic pathology was 41 people (34.16%); after poisoning there were 37 people, the number of patients with toxic encephalopathy – 33 people (27.5%); after self-arson – 9 people, there were 4 patients (3.33%) with burn encephalopathy. The obtained indicators speak in favor of greater pathogenicity, when a psychoorganic syndrome occurs a clear post-hypoxic factor (which usually occurs during strangulation); much less toxic (in case of poisoning); the burn factor, having been mixed in its structure, is also distinguished by a high degree of pathogenicity – due to the hypoxic component that occurs during self-arson, and toxic one – due to septicotoxemia, which subsequently is joined in a clinical period.

Clinically, the psychoorganic syndrome of studied patients was characterized predominantly by similar psychosymptomatics: general adynamia, less often hyperactivity, torpid thinking, impaired memory function (in mild cases – short-term, in more severe cases – long-term, often with amnesia of the fact of suicidal actions), intellectual functions (different levels), in violation of criticism to their condition, situation; apathy, sometimes complacency (up to euphoria), inadequacy of behavior; with toxic and especially burn form – more pronounced asthenia, depreciation. Dominant in the clinic of psychoorganic syndrome, in all forms of encephalopathy, is an intellectual-mnestic defect of varying severity form (from mild memory loss up to deep dementia). The time of formation of the psychoorganic (intellectual) defect is corresponded to the nature (asphyxia, toxic, toxic-posthypoxic) and the severity of the pathogenic process and ranged from 3-7 days in posthypoxic form of encephalopathy; 1-2 weeks – with toxic; 1-1.5 months – in a case of burn form.

From a neurological point of view for patients with posthypoxic and toxic encephalopathy cerebral symptoms are initially predominated, often with vegetative-vascular dystonic disorders, usually persisting persistently by the type of cerebral-vascular disorders. For patients with burn encephalopathy focal symptoms were more often observed: lesions of the oculomotor, facial, hypoglossal nerves, anisoreflexia according to the hemitype, pathological hand and foot reflexes, phenomena of oral automatism, etc.; the indicated symptomatology was generally persistent. Somatically patients with post-suicidal encephalopathy, who were initially in a serious condition (with impaired vital functions up to coma), were compensated at different time periods: with post-hypoxic encephalopathy – within 2-7 days; toxic one – 2-4 weeks; burn encephalopathy – 1-3 months (the duration was different due to joining septicotoxemia), with pronounced asthenization in the last two forms (especially burn one). The interesting fact is that

one of the frequent discrepancy between the severity of the somatic state and the increased background of the mood of patients with encephalopathy (mainly in moderate and especially severe degrees), which is explained by the violation of a critical assessment in connection with the existing intellectual defect.

In a paraclinical study the results were such as: with Ro-graphy of the skull in a greater degree of patients with encephalopathy, hypertesio-hydrocephalic manifestations are found (in the form of increased digital impressions, expansion of the pachyon fossae, sometimes thinning of the walls of the sella turcica), characterizing in a certain way by the phenomena of venous stasis, such as hypoxia of the brain; in posthypoxic encephalopathy, Ro-logical confirmation of this fact was noted for 67.42% of patients; with toxic one – for 54.12%; with burn encephalopathy – for 60.12% of patients). Neurophthalmologically: pathological changes in different forms of encephalopathy have a specific picture; with post-hypoxic – the main pathological changes observed primarily are leveled out in dynamics, after 2-3 weeks the phenomenon of clogged venous blood flow is preserved; with toxic form: retinal edema, spasm of the third order arteries, hemorrhages, peripapillary edema of the retina and optic nipples; for burn encephalopathy: decalorization of the nipples of the optic nerves, a decrease in the number of vessels in the vascular zone of the optic nerves. Common for different forms were the phenomena of venous stasis and optic-asthenia state. In the study of cerebrospinal fluid the majority of the studied patients revealed the phenomena of hypertension, increasing the actual aggravation of the severity of the psychoorganic process (with a functional degree – there is no; with mild degree – 10-12% of patients; with medium form – 40-43% of patients; with the severe form – 69-75% of patients).

By the experimental study, the most of the patients with encephalopathy, pronounced pathological changes in the form of slow-wave activity, the presence of sharp waves, alpha rhythm disorders, pathological paraximal activity, etc., are found to some extent inherent for patients with different forms of encephalopathy.

The patients were selected as they arrived from the military unit to the hospital. The diagnosis of "adjustment disorder" was established according to the following criteria:

- the presence of stressful events and situations in the circumstances of military service during the period of adaptation of young servicemen to it (also we've paid our attention onto suicidal behavior);

- the presence of the state of subjective distress of a serviceman before the disease, such as actualized mental states, as stress, frustration, crisis experiences, feelings of loneliness and humiliation, deprivation of support, hopelessness, despair, etc.;

- the presence of emotional disorders in the clinical picture of the disease in combination with a low level of productivity in social functioning or with its complete impossibility;

- the presence of comorbid adaptive disorders, such as suicidal ideas, intentions, fantasies and incomplete suicidal actions;

- the presence of relevant anamnesis data and data on premorbid traits of the person, which could, on the one hand, explain the origin of adaptive disorders, and, on the other one, exclude mental disorders of a different nature.

Clinical-psychopathological, clinical-dynamic, experimental-psychological and statistical research methods were used in this part of our research, as well as the analysis of the condition of patients in the process of their individual and group psychotherapy. Service characteristics from the unit where the service was held were studied for each patient.

With the help of a clinical and psychological approach and psychotherapeutic interviewing in the process of our research and psychotherapy, the system of views of the person and his life positions, directions of his behavior and lifestyle, strategies for organizing adaptive behavior were clarified.

Psychological risk factors for suicidal behavior

On the 2nd stage of the experiment the study of pathogenic situational factors and premorbid traits of the person contributing to adaptive disorders showed that the immediate causes of adaptive disorders of conscripts are, in general, not some extreme distressing circumstances, but everyday difficulties at the process of ordinary military service.

On the first place (64.9%) among the causal factors of adjustment disorders of conscripts, according to their own assessment, were the usual difficulties of military service. The patients complained about the inability to comply with the strenuous daily routine. These difficulties, recruits emphasized, were largely determined by the fact that they had their military service in the army in "hot spots" (in our research the events had taken their place in Donetsk and Luhansk regions, Ukraine). They were greatly affected by the deaths of their friends, commanders, and severe injuries, which in most cases had led to the disability of recruits.

The second place in the etiological structure was occupied by worries about a change in the sense of military men's own status (26.2%). Among them 18.7% of patients suggested that the commanders had communicated with them, often humiliating the dignity of their subordinates. Other 7.5% of recruits felt humiliated by the very need to obey and follow orders.

As for the third place in terms of frequency (8.9% of recruits) is the experience of separation from family and

friends, separation from home. This feeling is combined with longing, memories and resentment towards "fate".

And, at last, for the fourth factor – so-called hazing (we mean attitudes of officers to recruits with psychological harassment, demands to perform some kind of the activity, etc.). This reason, as the most significant one, wasn't noted at all by recruits, who had their military service on the territories of Donetsk and Luhansk regions, Ukraine (Fig. 1).

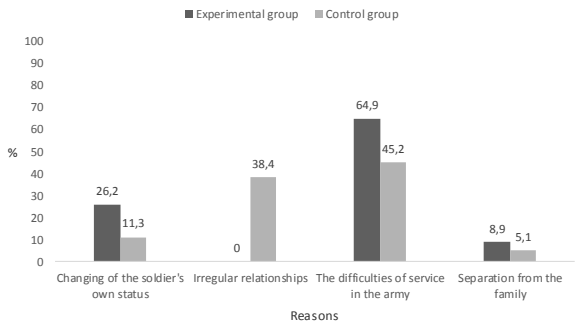

Fig. 1. Reasons of adaptive disorders of military servicemen

For control group the results differ from the same ones, which are diagnosed for respondents of control group. So, on the first place there is the same criteria – the great difficulties of military service (45.2%). But on the second place there is criteria "hazing", which means negative attitude of officers towards recruits (it is 38.4%). The latter we explain in the same way. The experimental group was not diagnosed with "hazing attitudes" because the situation of war did not allow for successful combat operations combined with injustice, humiliation and pressure from the side of officers on young recruits. In real circumstances officers allow themselves to belittle recruits, often requiring certain activities for several times (cleaning toilets, cleaning the floor in the barracks, etc.), to redo this work even at night, despite fatigue or malaise.

The third place among the respondents of the control group is the indicator "change in the sense of military men's own status", but it is not significant (11.3%). The last place took the criteria "the separation from family and friends", but it is also insignificant in its value (5.1%). The results are shown by Fig. 1.

Further research of this issue showed that the circumstances of the initial period of military service are closely intertwined with the factors of pre-army life and with the personal characteristics of sick servicemen (Table 1).

Firstly, most of them (77.5% in experimental and 79.3% in control group) had their upbringing in low-income families, in which family situations in the most cases were aggravated by conflicting interpersonal relationships. Thus, 73.6% patients of experimental and 69.1% in control group had had frequent quarrels between parents in their families for many years. 49.6% persons of experimental and 52.3% in control group were divorced and lived separately. 21.7% of respondents of experimental and 20.6% of soldiers of control one showed the loss of one of their parents because of various reasons. 58.6% patients of experimental and 59.7% – in control one had their upbringing in an incomplete family (more often without a father), either due to divorces even before the birth of a future serviceman, or due to the death of one of the parents (also more often this parent is the father).

It should be noted that the data of the respondents of the experimental and control groups are almost the same, there is no statistically significant difference in the results by t-criteria of Student by 1% level of confidence. However, difficulties in adapting to military service in the army were diagnosed, first of all, according to the respondents of experimental groups, which indicate that these difficulties are influenced primarily by the factor of hostilities in regions of Donetsk and Luhansk, and not the factors presented in Table. 1.

Despite all these factors (which in a great degree aggravate the life) had being studied by the patients, nevertheless, before the military service in the army were

Table 1. The factors of pre-army life that in a great degree aggravate adaptation to military service (highly probable signs are highlighted)*

	Frequency and confidence limits of the likelihood of pre-army life factors that burden adaptation and service in the army					
	Experimental group			Control group		
Significant factors of pre-army life	%	min	max	%	min	max
Single-parent family factor	58.6	0.5211	0.6417	59.7	0.5563	0.6824
Loss of one parent	21.7	0.2301	0.2516	20.6	0.1834	0.2177
Loss of a deeply loved person (a sister, a brother)	17.9	0.1892	0.2212	21.3	0.2451	0.2631
Conflicts between parents over the years	73.6	0.6931	0.7912	69.1	0.7105	0.7628
Material difficulties in the parental family	77.5	0.7830	0.8276	79.3	0.8004	0.8223
One (or two) parents have used alcohol (or drugs, other psychoactive substances)	29.4	0.2709	0.3144	25.6	0.2418	0.2932
Divorce of parents	49.6	0.4863	0.5428	52.3	0.5412	0.5894

* min – minimum meaning of the factor by factor analysis procedure; max – maximum meaning of the factor by factor analysis procedure

mainly socially adapted.

Clinical and psychopathological study of individuals in both groups confirmed that the military medical commission had all reasons to recognize them fit for military service. None of them, according to the data of our research, had any explicit accentuations of the character, or specific (psychopathic) personal disorders, or dependence on psychoactive substances, or adjustment disorders, or other mental disorders. At the same time, a psychobiographical analysis of the development of the person of sick servicemen revealed a common feature for them, such as increased personal vulnerability, low stress resistance, a low barrier to be tolerant for difficulties, which had been clearly identified long before conscription into the army.

Assessing the state of adaptation among conscripts, it was important to study also the characteristics of their person and interpersonal relationships. Using the test MMPI, it was shown that there are significant differences in these groups according to the following scales: Correction (K), Overcontrol (Hs-1), Pessimism (D-2), Emotional lability (Hy-3), Impulsivity (Pd-4), Feminine qualities (Mf-5) and Rigidity (Pa-6). At the same time, in the group of servicemen with adaptation disorders to a greater extent than for healthy individuals, there were presented traits of the person which determined easy neuropsychic decompensation (including decompensation according to a psychosomatic type of the person) and social maladjustment. These features include a tendency towards neurotic ways of responding to life's difficulties (low frustration tolerance combined with a tendency to "withdraw into the illness"); emotional instability and tendency to affective fluctuations; sensitivity; lack of plasticity and a tendency to fix themselves on their own shortcomings, problems or symptoms of their disease; great dependence and passivity in the sphere of social contacts (Fig. 2).

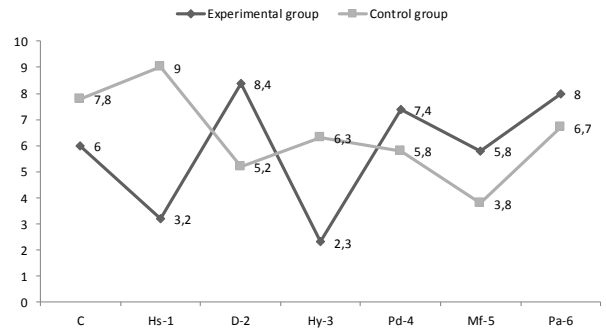

Fig. 2. Average profiles of the person in the experimental and control groups (according to MMPI: The scales of the test MMPI: C – correction; Hs-1 – Overcontrol; D-2 – pessimism; Hy-3 – emotional lability; Pd-4 – impulsivity; Mf-5 – feminine qualities; Pa-6 – rigidity)

The analysis of the results using Multivariate questionnaire by R.B. Cattell showed that patients with disorders in adaptation in the emotional-volitional sphere have instable mood, weak volitional control over impulses and wishes, deviations in emotional sensitivity, in emotional response, regression of will with behavior predominantly based on prevailing stereotypes and automatisms (Fig. 3). At the same time, the personality of patients differs according to the factors having been analyzed (we mean low tolerance in relations to frustration, a tendency to mood lability and emotional instability, fatigue and nervousness, as well as increased sensitivity, impressionability, sentimentality, anxiety, vulnerability and depression).

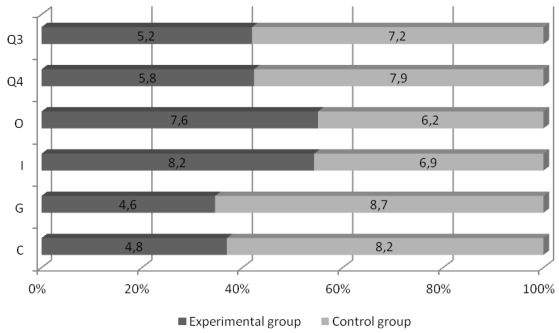

Fig. 3. Average data per person in the studied groups of recruits according to the factors characterizing the emotional and volitional sphere (by the test 16-PF of R. Cattell: Factors in Multivariate questionnaire of R.B. Cattell: C – emotional instability; G – undisciplined; I – tough-minded; O – self-reliance; Q4 – being relaxed; Q3 – non-conforming, rule-consciousness)

The control group of recruits, according to data obtained by Multivariate questionnaire by R.B. Cattell, differed from other patients because of greater emotional stability, self-control, constancy of interests, emotional maturity.

Our observation of the respondents in the experimental group showed that among the reasons for suicides 30-45% of servicemen were directly related to the difficulties of their adaptation to the conditions of military service. Based on our experiment, we identified the following clinical variants of depressive reactions as a result of maladjustment:

1) the reaction of disadaptation in combination with neurosis-like disorders (48.9%). In this group of respondents suicidal attempts were noted in 53.5% of cases examined (self-tapping screws, self-hanging);

2) the reaction of maladjustment including hypochondriacal inclusions (in 23.4% of cases of respondents). Hypochondriacal experiences were accompanied by thoughts of their own failure, helplessness, hopelessness. All this accompanies the formation of suicidal behavior (10.5% of soldiers have done the attempts of

self-hanging, and in 18.6% of cases there is a form of self-tapping screws). Suicidal attempts were in the most cases (in 80.94% of cases) impulsive;

3) maladaptive reactions with an anxious component were observed in 28.6% of cases. These respondents had anxious and suspicious traits of character. These soldiers are characterized by hazing, unauthorized departures from the military unit and suicidal thoughts.

In the occurrence of prolonged depressive reactions with impaired adaptation, prolonged stressful situations were of significant importance. Suicidal behavior in this category of the respondents was observed in 32.4% of cases. Sometimes we noted endoform symptoms.

As a result of our research it was found that the formation of borderline mental disorders in the conditions of military service occurs under the influence of a complex of biological, individual-psychological, environmental factors, having been interacted in different proportions and in varying degrees with the dependence of the duration of the stressor action, which subsequently determines the quality and the level of social functioning and the suicidality of a military man. The first period of the military service is the most suicidal. The formation of short-term depressive reactions was noted almost from the first days of being in the unit and it was manifested itself in the form of pseudo-cognitive disorders, which gave a great rise of decreasing of self-esteem of young soldiers. But later on decreased mood, sleep and appetite disorders were observed. In 47.5% of cases servicemen with short-term depressive reactions were noted as such people who had had auto-agressive behavior, in 25.6% of cases this mood was limited by suicidal fantasies and predictable statements.

All data having been obtained in our research were processed by us by the procedure of factor analysis. Into the first, basic factor (59.35% of the variance), which has a clearly defined social orientation and was called by us "Problems inherent in family upbringing", with the largest factor weight were included the following characteristics: "lack of parental love and care, friendship and support from parents lack parental love and care, friendship and support from the side of parents" (0.7134), "shame for the behavior and lifestyle of parents" (0.6512), "presence of a psychological complex of inferiority, shame, failure" (0.6302).

The second factor (40.65% of the variance), which, in contrast to the first one, has a purely personal orientation and was called by us "Personal qualities and characteristics". The second factor contains indicators with a low factor load (<0.06), that's why we wouldn't analyze these results in our research.

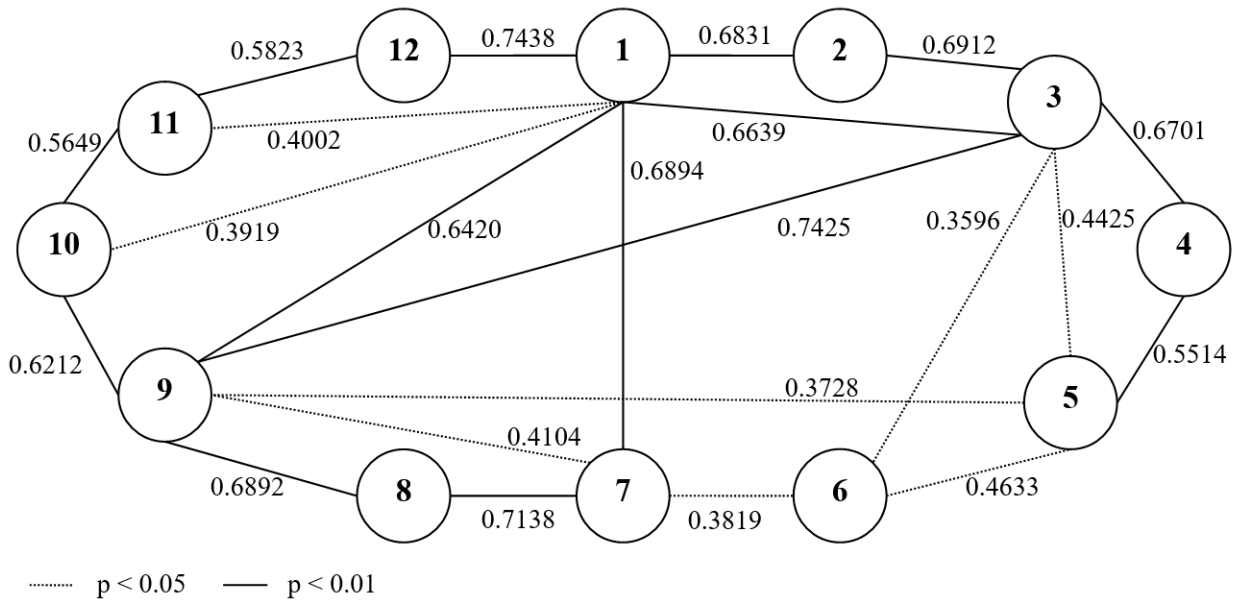

Fig. 4. Correlations between characteristics of adaptive disorders of military servicemen (1 – lack of parental love and care, friendship and support from parents lack parental love and care, friendship and support from the side of parents; 2 – shame for the behavior and lifestyle of parents; 3 – presence of a psychological complex of inferiority, shame, failure; 4 – envy towards more successful peers; 5 – fear of more successful peers and negativism towards them; 6 – in a great degree increased need for protection, support and patronage from more "strong" and "successful" people; 7 – passive obedience to "the stronger" and "more successful" people up to complete dependence on them; 8 – feeling of lack of self-sufficiency and self-doubt; 9 – insufficiently developed ability for psychological mobilization; 10 – increased need for protection, support and patronage; 11 – decreased tolerance to frustrations; 12 – shyness, timidity and indecision in new situations and situations with strangers).

The data having been obtained by us, had been processed by the procedure of factor analysis, were also processed by the procedure of correlation analysis of empirical data (Fig. 4). The highest number of positive correlations was obtained by the following indicators:

– "lack of parental love and care, friendship and support from the side of parents" has positive correlations with: "shyness, timidity and indecision in new situations and situations with strangers" ($r=0.7438$, $p<0.01$), "passive obedience to "the stronger" and "more successful" people up to complete dependence on them" ($r=0.6894$, $p<0.01$), "shame for the behavior and lifestyle of parents" ($r=0.6831$, $p<0.01$), "presence of a psychological complex of inferiority, shame, failure" ($r=0.6639$, $p<0.01$), "insufficiently developed ability for psychological mobilization" ($r=0.6420$, $p<0.01$), "decreased tolerance to frustrations" ($r=0.4002$, $p<0.05$), "increased need for protection, support and patronage" ($r=0.3919$, $p<0.05$);

– we diagnosed such significant positive correlations "insufficiently developed ability for psychological mobilization» with: "presence of a psychological complex of inferiority, shame, failure» ($r=0.7425$, $p<0.01$), "feeling of lack of self-sufficiency and self-doubt" ($r=0.6892$, $p<0.01$), "lack of parental love and care, friendship and support from the side of parents" ($r=0.6420$, $p<0.01$), "increased need for protection, support and patronage" ($r=0.6212$, $p<0.01$), "passive obedience to "the stronger" and "more successful" people up to complete dependence on them" ($r=0.4104$, $p<0.05$), "fear of more successful peers and negativism towards them" ($r=0.3728$, $p<0.05$).

So, in our research we proved, that mental disorders and personality abnormalities were high risk factors for suicide. Most of those people who commit suicide have never seen a psychiatrist before. Therefore, early diagnosis of mental disorders and assessment of suicidal risk in primary health care is an important prerequisite for reducing the risk of suicide. The success of such a risk assessment depends both on the completeness of the doctor's objective registration of predictors of suicidal risk in the patient's behavior, and on careful observation of his/her own feelings in the process of communication. The clinical interview should be based on empathic, non-moral acceptance of the patient and his/her emotions, regardless of the severity of the psychopathology and the nature of a mental disorder.

In our research it was shown that the suicidal behavior of soldiers depends on many external and internal risk factors. The leading factors in the formation of suicidal behavior are internal factors (neuropsychic states, the presence of latent mental illnesses, a tendency to depression, etc.). All these factors are formed in the soldiers' childhood. As we showed in our research the main internal factors are: "feeling of lack of self-sufficiency and self-doubt", "insufficiently developed ability for psychological mobilization", "increased need for protection, support and patronage", "decreased tolerance to frustrations" and others.

To a large extent, these factors, according to our research, are caused by children's experiences, namely external risk factors, such as: "lack of parental love and care, friendship and support from parents lack parental love and care, friendship and support from the side of parents", "shame for the behavior and lifestyle of parents", "presence of a psychological complex of inferiority, shame, failure", "envy towards more successful peers", "fear of more successful peers and negativism towards them", "in a great degree increased need for protection, support and patronage from more "strong" and "successful" people", "passive obedience to "the stronger" and "more successful" people up to complete dependence on them".

Based on the empirical data having been obtained in our research, their factor and correlation analysis, the psychological peculiarities of adaptive disorders of servicemen, which in 30-45% of cases lead to suicide attempts were proposed. These psychological peculiarities are:

– a high level of adaptive disorders of soldiers is due to socially oriented characteristics, among which some of them occupy a dominant place. They are: "lack of parental love and care, friendship and support from the side of parents", "shame for the behavior and lifestyle of parents", "presence of a psychological complex of inferiority, shame, failure", "fear of more successful peers and negativism towards them";

– military servicemen, prone to maladaptation during their involvement into military conflicts, usually have certain personal problems that were inherent in their childhood. Among such problems some of them take a dominant place: "insufficiently developed ability for psychological mobilization", "increased need for protection, support and patronage" and "decreased tolerance to frustrations".

In our research we proved all the hypothesis. We showed, that personal qualities and traits of the character played a leading role in the formation of suicidal behavior of the individual. We showed, that internal mental tension accumulated gradually, combining heterogeneous negative emotions. They were superimposed on one another, concern was replaced by anxiety, and anxiety, in turn, – by hopelessness. We proved, that internal suicidal behavior of combatants included suicidal thoughts, representations, experiences and even intentions.

In our research we showed, that despite the fact that internal factors had been formed from early childhood, the recruits were greatly influenced by the situation of the war, which had been taken place in Ukraine, Donetsk and Luhansk regions, since 2014. We became

sure, that "the war situation" meant moral, physical and psychological overload, uncertainty of the military situation, instability of the political situation in Ukraine, various criteria for assessing that situation (feelings about recruits' families, about their immediate future, attitude to self-aggression in general and suicide in particular).

In such a way we've to conclude that suicidal behavior was a complex phenomenon caused by a variety of motives directed on realizing different changes in the behavior of "significant other people" or alleviating (interrupting) severe mental and/or physical suffering of the person. The consequences of suicidal acts are experienced as severe stress not only for the military servicemen themselves, but also for their relatives and specialists who provide them with assistance.

So, we showed protective factors against autoregressive and suicidal behavior. To assess the severity of suicidal intentions and predictive reality of suicidal behavior it is necessary to remember that about the majority of suicides, before a real suicidal act, soldiers directly or indirectly tell, say about their suicidal intentions, declare fluctuations between the desire to live and to die. Recrutes with suicidal tendencies often give very clear instructions on what they are going to do. Many suicides occur during a period of improvement into the context of depression, when the soldier has enough energy and will to turn desperate thoughts into decisive action. Suicidal thoughts, as a rule, are not constant, they tend to be returned when a conflict or psychologically difficult situations became worse and worse, which is quite common during military operations. Direct conversation of a psychologist with a soldier about his problems can help to relieve the emotional state of a recruit.

Discussion

The results of our study indicate that personal qualities and traits of the character play a leading role in the formation of suicidal behavior. Other scientists also tell about a number of predisposing psychological and psychiatric factors of suicidal behavior. These factors are: increased tension of the person's needs, a desire for emotional intimacy, a low ability to form psychological defense mechanisms, inability to ease frustration, impulsiveness, explosiveness and emotional instability, increased suggestibility, uncompromisingness and lack of life experience; guilt and low self-esteem; hyporeactive emotional background in the process of conflicts, difficulty in restructuring value orientations.[48,49]

Suicide is often associated with a crisis of identity.[50] Such a psychological crisis can be arisen suddenly (under the influence of strong state of affect).[51-53] But more often internal mental tension accumulates gradually, combining heterogeneous negative emotions. They are superimposed on one another, concern is replaced by anxiety, and anxiety, in turn, – by hopelessness. A person loses faith in himself/herself, because of the ability to overcome adverse circumstances. In such a way the internal conflicts of "self-rejection", "self-denial" are arisen, and a feeling of "loss of the meaning of life" appears.[54-55] In our research we also proved that the leading factors in the formation of suicidal behavior were internal factors (neuropsychic states, the presence of latent mental illnesses, a tendency to depression, etc.). All these factors are formed in the soldiers' childhood. As we showed in our research the main internal factors were: "feeling of lack of self-sufficiency and self-doubt", "insufficiently developed ability for psychological mobilization», "increased need for protection, support and patronage", "decreased tolerance to frustrations" and others.

So, internal suicidal behavior includes suicidal thoughts, representations, experiences and even intentions. Passive suicidal thoughts are characterized by the ideas, fantasies about the person's death, but not about taking by him/her the person's own life as a spontaneous activity. As a bright example of this we've to propose such statements of militaries with one attempt of suicide: "It would be nice for me to die…", "I'd like to fall asleep and not wake up"; "If something happens to me and I die…" These results are related to current scientific knowledge.[56,57] In these researches the authors proved, that people with hysterical personality disorder were the most suicidal. For these respondents scientists counted more than 35% of all completed suicides. The highest frequency of repeated suicide attempts with a tendency to demonstratively-blackmailing forms also correlates with hysterical personality disorder. In addition to suicidal behavior, the following types of deviant behavior are very often observed in accordance with these individuals: dependence on alcohol and other psychoactive substances, sexual promiscuity and perversion, collective types of deviant behavior (sectarianism and participation in informal groups).[58-60]

In our empirical research we also proved that despite the fact that internal factors have been formed from early childhood, the recruits are greatly influenced by the situation of the war, which has taken place in Ukraine, Donetsk and Luhansk regions, since 2014. "The war situation" means moral, physical and psychological overload, uncertainty of the military situation, instability of the political situation in Ukraine, various criteria for assessing this situation (feelings about recruits' families, about their immediate future, attitude to self-aggression in general and suicide in particular). During the military conflict in Donetsk and Luhansk regions the soldiers often are influenced by senseless actions of soldiers based on orders of commanders, social misunderstanding of these situations (which, in turn, facilitates low level of social maturity, use of psychoac-

tive substances, hetero- and autoaggression). Post-traumatic stress disorders, anxiety and depressive disorders and neurotic states, sometimes – even psychopathic disorders, which also have taken a place, actualize children's experiences, which take a more severe form than in childhood, facilitates the acquisition of psychopathic traits of soldiers. As a rule the latter leads to suicide.

Scientists proved that suicidal ideation was an active form of manifestation of suicidality, that is a tendency to suicide, the depth of which increases because of the degree of the development of a plan for suicide implementation.[61] The current researches state that, as a rule, the person realizes the ways of suicide, a time and a place of committing suicide actions. In our research we came to the opinion that in a great degree suicidal intentions involve the addition of a decision and a volitional component to the idea, prompting a direct transition to external behavior of the person.[62-64]

So, the structure of suicidal experiences is based on the person's attitude towards two polar opposite values: one's own Life and Death. The attitude towards the person's own life in presuicide is often expressed in four main forms: 1) by a great feeling of indifference; 2) by a feeling of regret about personal existence of a man; 3) the experience of the life's burdensomeness, intolerant attitude to everything that is around people; 4) by the experience of being disgusted with the person's life. The attitude towards death appears in its forms: 1) in a form of fear because of death, which is although reduced by its intensity; 2) by a feeling of indifference; 3) by a feeling of inner consent to die; 4) showing a great desire to die.[65] In our research we also came to the conclusion that some psychotraumatic factors had a suicidogenic effect: personal; interpersonal; family or production situations, accompanied by underestimation of others; refusal or obstacle to the achievement of purely selfish goals; dissatisfaction with the claims of the person to his/her exclusive role; situations of uncertainty; some combination of all of the above factors. The period from the movement when suicidal thoughts appear and when the attempts are implemented is traditionally called presuicidal (presuicide). It always lasts for several minutes ("acute presuicide") or some months (so called "chronic presuicide"). The presuicidal period is a key to point out the problem of so-called "impulsive" suicides. All deaths without the idea of the person about his/her own death should be classified as accidents, but not suicides. External forms of suicidal behavior always include suicidal attempts and completed suicides.[66]

In current researches of scientists it is said that when it was about repeated suicidal attempts, there was a tendency to move from true suicidal behavior to demonstratively blackmailing with rent-seeking attitudes.[67-68] Attempts of a manipulative type predominate, they have the aim of providing psychological control over others by a psychopathic personality.[69-71] There is also a transformation of personal meanings with the dominance of some hysterical reactions, such as a call for help, a protest, blackmail. There is also a change in the methods of suicide from more severe to some lighter (self-poisoning, self-cutting) and less lethal forms. With each subsequent attempt suicidal behavior is consolidated and becomes a style of the behavior in resolving conflict situations and defending one's interests. This style of behavior is formed after the situation is resolved in a favorable direction for the suicidal person after the first suicidal attempt.[72]

According to the empirical results of our study (we mean militaries) we also distinguish the following types of suicidal behavior: 1) a really conscious behavior (when the person does conscious actions, the purpose of which is to commit the act of suicide); 2) emotionally-affective type (suicidal actions are done due to a strong effect of some psycho-traumatic accident or event); 3) demonstratively-hysterical (conscious manipulation of a military with life-threatening actions with the purpose to change the conflict situation in a favorable direction).

In the researches of scientists it was shown, that people with emotionally unstable personality disorders were among the most suicidal ones. Among all individuals with personality disorders who have committed suicide there are about 75% ones who are emotionally unstable.[56-59]

Repeated suicidal attempts tend to defiantly blackmail forms. They take on the character of manipulative-type attempts and discharge-type attempts. Attempts of the discharge type are impulsive by their mechanism of growth. During a suicidal act the emotional stress is discharged with a simultaneous narrowing of the paradigm of the person's consciousness. A control over the person's behavior is weakening. Therefore, a person's behavioral response in the form of a suicidal attempt often looks inadequate to this or that situation. Each subsequent attempt "sensitizes" the person, creates a psychological readiness for repeated suicidal attempts, which are carried out in more risky, often fatal ways.[70]

The results of our research showed, that a really conscious suicide of a military was developed in such a way. The predispositional phase of suicide is characterized by exceptional emotional intensity for a suicidal person. During this period the militaries' attention is fixed on insurmountable difficulties of the service, on different thoughts about the lack of potential opportunities to solve the problems that have been arisen. When a military is in a conflict or critical situation, personally significant needs are frustrating, and a military in the most cases begins to write home anxious, shocked, panicked letters. In such situations militaries ask their wives, parents, rela-

tives to organize leave from military service. Militaries often address to commanders with extremely persistent requests for hospitalization, and sometimes for practical psychological help. In such a way a military seeks a great support. This phase can be characterized as the phase of psychological social maladaptation. The life is perceived only in its retrospective, without a bright, encouraging future. The military feels inner emptiness and meaninglessness of his/her existence. The loss of the meaning of life is a central link in the suicidal behavior of a military.[61]

In modern studies it is also emphasized that different symptoms of depersonalization greatly influence the commission of suicides.[51] In current researches there are shown personal characteristics that potentiate suicidal behavior: a pronounced tendency to act quickly, impulsively, without taking into account the probabilistic consequences; a pronounced tendency to conflict behavior, especially in cases where impulsive actions are rebuffed or criticized; a tendency to outbursts of anger or aggression, culminating in "behavioral outbursts" that the individual is not able to control; propensity to self-reassessment; unstable, changeable mood.[70]

Having been on the predispositional suicide phase, different symptoms of depersonalization appear. They are: the indefinite feeling of internal change, alienation, oppressive or depressive mood, the experience of some kind of "unnaturalness" of the environment, its incomprehensibility and hostility. Some militaries, after one or more failed attempts of suicide, feel internal panic, internal catastrophe, tell about a premonition of some kind of the disaster. Militaries also feel a hypertrophied desire for self-analysis, self-observation, there is a heightened feeling of reflection.[61]

Modern researches deal with such point of view that in a case of militaries suicidal risk is due not only to personal, but also to endogenous factors, such as "phases of oppression" with a gloomy-dreary mood, maliciously aggressive discharges, conflicts, senestopathic sensations.[73]

In our research we also proved, that suicidal thoughts of militaries appeared, and later the person thought about the method of suicide, "trying it on him/her". The suicidal period, the beginning of which is associated by us with the appearance of suicidal thoughts, lasts until the attempt of the person to finish his/her own life. The very decision to commit suicide, even as a result of "thinking over", testifies about great experiences of extraordinary thoughts how to commit suicide.

Often in the very suicidal phase, before committing a suicidal attempt, a military displayed some behavioral features due to an affective narrowing of the person's consciousness. At the same time, there is a fragmentary perception of the environment, a decrease of the reaction to some external stimuli, emotional retardation and inadequate actions and statements, which precede suicide. At the same time, other forms of manifestation by militaries of behavioral forms of suicide activity were also noted by us: prudence, decisiveness, composure (so called ominous or mortal calmness), and great aggressiveness. Sometimes the adoption of a suicidal decision is accompanied by fussiness, motor excitement, causeless gaiety. However, in all cases of committing a suicide, the unnatural behavior is immediately evident.

Study limitations

There were some limitations in our research. Firstly, the research was organized only in one Hospital (it is the Main Military Clinical Hospital (the Center), Kyiv, Ukraine). Secondly, in our research in experimental group there were participated only combatants with adaptive disorders, suicidal thoughts and attempts. Thirdly, into a control group we included 60 conscripts without adaptive disorders. Fourthly, in our research there were participated men in the age 18–22 years old. Fifthly, there were only men, not women, who participated in our research (because we organized this stage of the study in July – November, 2021, and in this period of time there were no women in the age 18–22 years old with suicidal thoughts and (or) attempts at the Main Military Clinical Hospital (the Center), Kyiv, Ukraine). And, the last one, sixthly, the terms of our research were limited by July–November, 2021.

Conclusion

We proved, that suicidal behavior was a complex phenomenon caused by a variety of motives directed on realizing different changes in the behavior of "significant other people" or alleviating (interrupting) severe mental and/or physical suffering of the person. The consequences of suicidal acts are experienced as severe stress not only for the military servicemen themselves, but also for their relatives and specialists who provide them with assistance.

Summing up, we should point out the expediency of the main provisions that are of practical importance in the activity of psychiatrists with suicidal militaries. All suicides who have committed severe suicidal attempts (hanging, complex poisoning, self-arson), according to their somatic compensation, must be examined by a psychiatrist without fail, using the developed classification of post-suicidal encephalopathies and certain experimental methods of psychophysiological research, in order to objectively identify the severity of the psychoorganic process, which in turn determines the treatment tactics of the doctor. Experimental psychophysiological examination of suicidal patients with residual post-suicidal encephalopathies should be carried out before and after the course of treatment in order to determine the objective results of treatment, the nature of rehabilitation, issues of medical and labor psychiatric examination and medical and social prognosis of patients, done by the doctors. The obtained statistical data on the dy-

namics of severe suicidal attempts in an acute affective, non-psychotic state (mainly among the militaries in the age 18-25 years old), followed by a residual psychoorganic defect, having been traced since 2014 in connection with military operations in the East of Ukraine, reflect the general trends of suicidogenesis among the male population of Ukraine, which contributes to the objective assessment and the possibility of solving this problem by appropriate medical and social preventive measures. According to our data, the motives of protest and conscription prevailed among soldiers. Therefore, the most important preventive factor is the early diagnosis of presuicidal changes in the behavior of young soldiers in the unit, which also indicate the need to use a model of psychological support for military servicemen. It will be done in further our articles.

Declarations

Funding

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Author contributions

Conceptualization, N.M. and Y.K.; Methodology, Y.P.; Software, Eduard I.; Validation, Y.K., W.Z. and Ernest I.; Formal Analysis, Eduard I.; Investigation, Ernest I.; Resources, A.Y.; Data Curation, Y.K., Eduard I. and Ernest I.; Writing – Original Draft Preparation, N.M.; Writing – Review & Editing, Y.P.; Visualization, A.Y.; Supervision, W.Z.; Project Administration, N.M.; Funding Acquisition, N.M.

Conflicts of interest

The authors declare no conflict of interest.

Data availability

The empirical results of our research of use of suicidal behavior of combatants in the conditions of their military service on the territory of Ukraine were presented in the repository "*Social Science Research Network (SSRN)*".[74]

Ethics approval

The ethical examination of the conducted empirical research was carried out and it was approved by the Committee on Ethics of Scientific Researches of the Public Organization "National Academy of Sciences of Higher Education of Ukraine", protocol № 12, dated from the 14th of December, 2021.

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