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20 YEARS LONGITUDINAL STUDY OF A VALID CRITERION FOR SUICIDE PREDICTION (LSVCSP)

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ABSTRACT

Background: Suicide keeps one of the most unpredictable human actions. World Health Organization lists plenty reasons for it commission. Definition of high-risk groups and prevention of suicides remain the current importance. We proposed an original hypothesis for suicidal readiness detection. **Material and methods**: For 20 years period 210 individuals voluntarily agreed to take part in the research. We divided 150 participants with suicide attempts to the main group and 60 respondents without suicide to healthy controls. Both groups were representative of age and sex. The suicidal risks were analyzed by the clinical interview and psychodiagnostics methods followed by modified Dembo-Rubinstein's self-assessment test and F.Hoppe's technique. **Results:** The F.Hoppe's test shown significance among main suicide group – 22,6±3,6 point and healthy controls group – 10,9±5,1 points ($p<0,001$). The Dembo-Rubinstein's assessment indicated 24,1±3,4 and 14,9±3,8 points i($p<0,001$) respectively. The difference in data for both methods characterized the degree of dissociation between a high level of claims and a low level of self-esteem. The technique demonstrated high rates in sensitivity - 81%, specificity - 96%, and positive predictive value - 98%. **Conclusions:** The study obtained the confirmation of the hypothesis with high confidence. We presented a valid indicator of suicide prediction and future risk assessment. The presence of anti-suicidal clinical components indicates a lower risk of repeated and completed suicides. Was found that in the mechanism of all types of suicides is present the dissociation between low self-esteem and a high level of requirements.

KEYWORDS: Suicide, valid criterion, predictive validity.

INTRODUCTION

Definition of high-risk groups and prevention of suicides remain the current importance. But the results of internet search studies for predictors of suicidal behavior (as a psychopathological, personality, socio-demographic, physical) are not allowed to put forward effective criteria for suicide prediction, considering it is not yet possible.[1-5]

World Health Organization lists up to 800 causes of suicide, where 41% of them are unknown, 19% is a fear of punishment, 18% cause by mental illness, 16% for home tragedies, 1.2% for physical illness, etc. In particular, the most important clinical and psychopathological criteria have a significant correlation only with the degree of seriousness of suicidal intention which indicates the indirect significance of psychopathological signs. The results of such studies in the field of predicting suicidal behavior indicate the need for other methodological approaches.[6-9] There is reason to believe that psychodiagnostics (e.g., experimental, psychological) methodology can provide more valid indicators.

Justification of the hypothesis. The hypothesis allows some radicalism, and for publishing certainly it is presented in the shortened form. The difficulties of prediction are associated with the presence of many individual factors of suicidal risk, inconsistency, variability of pre-defining variables and their combinations. The traditional approach contains not just a set of sociodemographic criteria, but, in fact, an analogy with the prediction of the dynamics of psychopathological states that have their pathokinetic stereotypes. But committing suicide is not predictable, like the dynamics of psychopathological phenomena, since it is a behavioral reaction, and like any other behavioral act it cannot have a completely clinical reliable even the most extensive set of prediction criteria.

Hence, the first most general state: suicidal behavior can evenly be considered not only as a point of view of the pathological individual's rational behavior. The evolutional development of thinking of the biological species of Homo sapience is associated with the emergence of a new behavioral act: a self-destruction actions that are not found in the orthogenesis. Animals do not commit suicide, being capable of self-defense of the body, but not of their own personality. And any function of the evolutionary improvement has limits set by the fact that, due to some excess, it becomes worthless for the survival of the species. This applies, if we accept theory of evolution, other conditions of nature selection, however, it is far from undeniable that the complication of human behavior beyond any boundaries should be unconditionally beneficial. Opposite, there is a factor limiting the complexity of thinking and behavior.

The second statement: suicidal tendencies have some similarities with the pathology of drives, but indirect. For instance, the likelihood of repeated suicide increases many times. Furthermore, in severe depression there may be no logical justification (personal meaning) and preliminary planning of a suicidal act. Another fact is awareness of the finiteness of life occurs in children of 6-8 years of age, i.e. at the beginning of the second, egocentric, and long before the third social stage of the development of self-awareness. Therefore, there is no reason to look for the main criteria for predicting suicide in the socio-demographic circle. However, it is unlikely that one should also use the concept of death drive. This leads again to the idea that this deep attraction is revealed anew similarly to the genesis of psychopathological symptoms according to the principles of the Jackson-Ey-Bilikevich's ethical-epigenetic theory. The term "death drive" is itself an oxymoron - the drive to end drives and has a catchy sound due to its paradoxicality.

The third statement. Suicide is acceptable to understand as an adaptive reaction: current circumstances are incompatible or seem incompatible (with depression in particular) with the preservation of one's own personality. If these circumstances cannot be eliminated, then protecting your personality you must stop their action even by the most extreme way - the destruction of the personality. Edwin Schneidman a clinical psychologist from Los Angeles Research Center states delicately: "The common goal for any suicide is to find a solution".[10]

More specifically this was formulated by the psychiatrist J. Friedreich: suicide is a pathological, ineffective, but it is adaptive protective reaction, an act of self-preservation of a person.[11] The sociologist E. Durkheim put it the other way: "Suicides are generated by that refined human ethics which puts the human person above existence itself".[12]

The purpose of the study is an experimental verification of the theoretical background: the dissociation between self-esteem and the level of claims is the basic mechanism of suicidal behavior and development of an applied method for suicides prediction.

MATERIAL AND METHODS

210 individuals 18+ year old were studied during the period from 1997 to 2017 years. The first (main) group consisted of 150 persons and the second (control) group consisted of 60 people. The main group included persons who had a suicide attempt, 89 women and 61 men and 28 mentally healthy persons in average age 42 ± 9.9 years. 74 respondents were diagnosed depressive disorders (F 31, 32-33), and 38 person had anxiety, stress-related, somatoform and other nonpsychotic mental disorders (F41, 43, 45, 48), and 10 of them had disorders of adult personality and behavior (F60-69) on ICD-10.[13]

The diagnosis was established by a council of at least 3 PhDs in medical sciences. 52 subjects were examined on an outpatient basis and 98 during hospitalization at the psychiatric clinic of the Kiev Medical University Ukrainian Association of Folk Medicine (Kiev, Ukraine). The control group was composed on a one-to-one basis that is, selection is equivalent to age, gender, somatic state, education and social status, which amounted to 36 women and 24 men, and the identical average age was 42 ± 8.8 years. It is noteworthy, that 2 people were excluded from this group because they found suicidal risk indicators, after which they confessed to committing suicide in the distant past.

All individuals provided voluntary inform consent to participate in the study as writing (upon admission from the hospital), and word by mouth.

The suicidal risks were analyzed by the clinical conversation and psychodiagnostics method. We used the Dembo-Rubinstein's and F. Hoppe's methods in B. Bezhanishvili option.[14] Adaptation of these techniques is not required; they can simply be translated into another language. The necessary modifications, in our case, concern only the quantitative assessment of criterions. This is accordingly outlined below in the results.

RESULTS

In clinical terms, it was considered that the statements expressed in the introduction are paradoxical no more than an idea of the adaptive meaning of any somatic syndrome. Nevertheless, it is contained the discrepancy: the desire for self-preservation by self-destruction, and it must be expressed by appropriate clinical signs. That is, anti-suicidal symptoms in the process of suicidal actions may reflect the severity and risk of retrying.

By anti-suicidal signs is meant the presence in patients of a conscious response to suicide during the preparation or attempt. Thus, one category of 46 suicides does not show thoughts of resistance to its suicidal plan, or there is a crowding out of committed acts of this kind. For example, a patient with melancholic syndrome in his

self-report indicates that "only thought was the meaninglessness of life." Or even, a patient who defiantly inflicted superficial damage to her skin insists that she was saved only by accident, she had the most definitive intention to die.

In another category of 104 respondents, there is a conscious opposition to the carried-out suicide plan. For instance, a patient with a true attempt explains what she thought: "then let the doctors do anything if only it would become easier" (i.e., the presence of an alternative scenario). Or in self-report there is a fear of suicidal actions (i.e., the presence of both desire and fear of death). In demonstrative attempts, in contrast, to the first category, there is some degree of recognition of blackmail motives: "it was rather a fantasy, I imagined and threatened, knowing for sure that I would not do it to the end" or: "I was ready for everything and wanted it prove that to everyone"(i.e., a partial awareness of the demonstrative nature of suicidal acts).

The analysis is characterized by the independence of the variable — the presence of anti-suicidal tendencies could not be associated with the structure and severity of psychopathological syndromes, with the types of suicide — demonstrative, affective, true, as well as with variants of personal meaning - protest, appeal, avoidance, etc.

Thus, in the presence of anti-suicidal thoughts or deliberate actions concomitant with suicidal behavior, the risk of a repeated and completed attempt is lower outside of subordination to other psychopathological, psychological, social indicators. Unexpectedly, a patient with a psychopathic obviously demonstrative attempt, but without the mentioned anti-suicidal elements, may have a higher risk of suicide than a patient with severe depression, but with contrasting thoughts about possible pain and torment during the attempt.

Anti-suicidal symptoms may be used in a clinical examination as informative regarding the prognosis of repeated suicide. According to the statistics,[9] the proportion of inpatients who taken with a second suicidal attempt was 85% in the first category and 6% in the second.

The psychodiagnostic (experimental-psychological) method is attractive enough for the validity of the test study for these tasks. The method is based on the same idea that suicide occurs when a patient experiences his inability to change circumstances that are incompatible with personal safety. That is, behind the whole variety of suicidal motives, meanings, there is always a common resultant element. In a practical approach, a reflection of the key mechanism of suicide is the dissociation between a relatively high level of claims (which during depression remains either intact, or often increased) and, on the other hand, a low level of self-esteem.

Known test methods were used supplemented by a quantitative assessment of the results. The Schwarzlander's motor test, turned out, to be technically inconvenient. Therefore, the F. Hoppe's methodology for assessing the level of claims was applied (version of T. Bezhanishvili). Two columns of 12 numbered cards are laid out vertically in front of the subject, on the back of which are written tasks (for example, name 5 countries with the letter "P", etc.) in increasing complexity from 1 to 12 numbers. Modification does not affect the essence of the methodology; the outdated wording has been changed in several issues. The subject received the task: for a limited time - 5 minutes: turn over the cards and verbally solve tasks in order to score maximum points for successful answers - the sum of the solved numbers. At the same time, there are no restrictions in the order of choosing the first and subsequent cards, you can refuse to try to save time if you only need the result. Assessment of the claims level by the psychologist consists of the total amount: the number of the card with which the subject begins to perform the task - "claim" the result. Plus 5 points for each inadequate reaction to failure according to the type of increased level of claims (i.e., if after an unresolved assignment he takes a more difficult one). Or minus 5 points for the reaction to success as a lower level - if, after the completed task, the subject takes a simpler one. The indicators vary significantly among suicides - 21-26 and in the control group - 6-18 points, despite of the psychomotor inhibition in some depressed patients. The results of the main group - 22.6 ± 3.6 and the control - 10.9 ± 5.1 ($p < 0,001$).

The second method: The study of the level of self-esteem is represented by a verbal version of Dembo-Rubinstein's self-assessment test. Recall again, that the technique consists of 4 scales according to which the subject assesses his health, mind, character and how happy he is. Numbering in each of the four columns of statements gives 9 points each, goes from the highest to the lowest rating of their qualities.

The modification here is formal only. Firstly, the verbal version of the technique allows you to summarize the number of points (selected numbers of answers), which serves as an indicator of the level of self-esteem. Secondly, the subject responds semi-anonymously, that is, does not name the selected items, but tells the psychologist / doctor only the amount of points scored. This is fundamentally important (!) in order to ensure openness of choice. Usually we get 22-28 points for depression and 12-18 for normotimia. The indicators were in the main group - 24.1 ± 3.4, and in the control - 14.9 ± 3.8 ($p < 0,001$).

The difference in data for both methods characterizes the degree of dissociation if any, between a high level of claims and a low level of self-esteem. That is, the indicator of the level of claims and the indicator of self-esteem are summed up (than more points than lower it is). The indicators in the main group were 46.7 ± 4.9, in the control group - 27.0 ± 5.4 ($p < 0,001$). Differences

were clearly visible in separate observations and were significant even in small samples.

The presence of suicidal risk is indicated by dissociation of more than 40-45 points, but 50-55 or more in practice allows us to confidently expect the upcoming suicidal attempt (independently, whether it is an excitable or sensitive person, a patient with hypotension or paranoid, in a good or not social situation, etc.). That is the presence of a basic element of suicidal behavior is experimentally reflected. Not only an absolute indicator, but a dynamic a rapid increase in the mismatch of claims and self-esteem (P. Stevensen's formula "I, certainly, must but am incapable") can be called a precursor of suicide.

Besides, our technique has demonstrated high rates in sensitivity 81%, specificity 96%, and positive predictive value as well – probability that a person who has a positive test result actually has a suicide ideation is 98%.

DISCUSSION

The authors used the methodology for a personal assessment during about 20 years and now suppose on evidence-based confirmation of the theoretical hypothesis. At the same time, they did not expect such obvious results. That means, our technique is suitable for practical use. As a result, the lacks became apparent. The simplicity of the method is apparent as well. A very qualified psychologist and the organization of the situation are needed.

Tests on self-esteem and level of claims we would like to update or replace. Their validity suits, but there are some claims to accuracy and reliability. In addition, it is not enough to identify a high rate that predicts a suicide attempt. It is also advisable to use lower indicators not tentatively, but to compare with the degree of suicidal risk which means a greater research work.

However, the available initial option is already suitable for the practice of a clinical psychologist and doctor.

CONCLUSIONS

1. The presence of so-called anti-suicidal clinical components indicate a lower risk of repeated and completed suicides.
2. The scores of psychological tests indicate the dissociation between low self-esteem and high claims and are valid for suicide prediction.

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