CHANGE OF PSYCHOLOGICAL FEATURES OF THE MASTER KIT USERS DEPENDING ON DURATION OF TECHNIQUE USE AND QUANTITY OF TRANSFORMATIONS

D. R. Trutneva

Psychologist, author of the tool for self-regulation, co-founder of the Research Institute

Abstract. This research presents the results of studying the psychological features of the Master Kit technique users. Experienced users (over 1 year), as well as newcomers, who were given free access to the technique, were represented in the sample. The observation of newcomers took place over 12 months. During the research, newcomers spontaneously divided into subgroups of active and inactive users, which allowed us to consider the immediate effect of the simulator's use more targetedly. The results of the research show that as the technique was used, the newcomers showed positive changes on the scales associated with stress resistance. There was a correlation between the quantity of transformations and psychological changes in the technique's users.

Keywords: Self-regulation, automated technique, stress resistance, the Master Kit, anxiety, mindset, psychological features

Introduction. The development of the field connected with computerized programs that include tools for self-regulation and psychotherapy is of particular importance in psychology [27]. Such technologies now have a sufficient set of tools to provide for the high-quality conducting of randomized and controlled research to assess a person's mental state, and the number of such studies is growing [28]. The possibility of using such technologies to maintain mental health and to help solve personal problems and improve the quality of life is being studied [28]. The Master Kit software product is the representative of such field among the Russians. It is an automated simulator of psychological self-regulation aimed at giving its users the skills to achieve actual goals and objectives.

With quite a large customer base using this product (more than 20,000 people), the practical issue is to carry out an objective assessment of the degree of clients' changes at the psychological level arising from using the technique. All of the above issues have a certain relevance for the application of scientific methods. The findings will help in the subsequent interpretation of the possibilities of the technique's application, providing recommendations and improving the use procedures.

This scientific research puts at the forefront the provision of qualitative analysis of the program to improve its efficiency, formulation of practical and theoretical objectives allowing expansion of the available functionality of the product, and identification of the most important mechanisms of the technique's influence on a person. With a focus on studying the impact of the program on its users at a deeper psychological level, depending on the number of their transformations, it is important not only to specify the effectiveness of the program but also to identify the rate of change when using the techniques related to the group of psychological influence methods.

Thus, the purpose of the research is to study the change of the users' psychological peculiarities depending on the number of transformations in the Master Kit software product as an example of an automated simulator for psychological self-regulation. The mental activity of complex reflection will be analyzed from different perspectives: The conditions of

its achievement, concomitant experiences and their changes in time, influence on efficiency of the carried-out activity, and connection with other mental aspects and formations will allow us to point not only to the state experienced by the test person but also to the request degree. The obtained data will allow us to draw a conclusion on the psychological peculiarities of the users of the software product Master Kit and will answer the question about the influence of the number of transformations on the users' psychological peculiarities. Based on the obtained results, it will be possible to plan further studies of theoretical and applied aspects of the studied problem.

The design of the research. This research can be categorized as a cohort study by its type. Several groups of test subjects were formed during the research: experienced users, with an application period of more than 12 months; newcomers, persons without experience of using the technique and respondents applying for the purchase of the software product independently, to whom participation in the research and free access to the technique were offered. The selection criteria for the studied groups were as follows: age from 20 to 45 years, the absence of fact of health encounter with a psychiatrist/psychotherapist in the anamnesis, and the absence of clinical signs of mental disorder. A psychiatrist conducted a voluntary psychiatric examination of candidates for the study group to assess the users' mental states. At the stage of selecting test subjects, 102 people were selected from 400 candidates: 61 of the experienced users and 41 of the newcomers. Both studied groups took experimental and psychological testing on 10 techniques. The newcomers were then asked to use the product with a repeat of the testing procedure in 3 months. In 3 months, it turned out that the group of newcomers spontaneously divided into two subgroups: active users (more than five transformations) and inactive users (fewer than five transformations). Both groups had their free access to the product extended, but the tendency to split into active and inactive users survived. During 6- and 12-month periods, both subgroups were retested with the same set of techniques. Thus, finally, three studied samples were formed – experienced users, active newcomers, and inactive newcomers – with the results of experimental and psychological testing at intervals of 0 months, 3 months, 6 months, and 12 months. We conducted a comparative analysis between experienced users and newcomers at the points of 0 and 12 months, between active and inactive users at the points of 0, 6, and 12 months, and within active and inactive users' subgroups at all points. In addition to the scales of experimental and psychological techniques, the number of users' transformations was taken into account: the total number of transformations for the current period, the number of completed and uncompleted transformations for the current period, the increase in the number of transformations between the 3–6 and 6–12 months intervals, and the ratio of completed to uncompleted transformations.

The methods of the research. As the main method of studying the users' psychological peculiarities, we have applied the method of experimental and psychological testing. The set of experimental and psychological techniques for psychodiagnostic examination of the test subjects is presented below.

1. **The anticipation consistency test.** This test allows one to estimate the degree of anticipation ability [11]. The test enables the assessment of prognostic competence at four scales: temporary (chronometrical) anticipation consistency, spatial anticipation consistency (motor dexterity), personal and situational anticipation consistency, and general anticipation consistency. Standard limits: temporary – 42 points; spatial – 52 points; personal and situational – 164 points; general – 241 points.
2. **"The Technique of Intuitivity Level Assessing" by E. A. Naumenko.** The technique is designed to determine the levels of personality intuitivity [14]. The test enables

the assessment of three scales: intuitivity, hypnoability, and reliability. Maximum points: intuitivity – 66 points; hypnoability – 42 points; and reliability – 14 points. The assessment of the intuitivity and hypnoability scales is conducted with a comparison of standard indicators. For the intuitivity scale: low manifestation of sign – 22–23 points; average value – 24–58 points; high manifestation of sign – 59–66 points. For the hypnoability scale: low manifestation of sign – 14–15 points; average value – 16–35 points; high manifestation of sign – 36–42 points.

3. The scale of "Intuition Trust" from S. Epstein's questionnaire "Rational one –Experiential one" in the adaptation of T. V. Kornilova and S. A. Kornilova. This test enables assessment of the degree of intuitive abilities and the use of intuition [10]. The questionnaire contains two subscales, intuitive ability and use of intuition, with 10 questions for each. Maximum primary points for each scale – 50 points.

4. The "Life Style Index" questionnaire by R. Plutchik, G. Kellermann, and G. Conte (adapted version by U. B. Klubova, 1991). This test enables assessment of the degree of mental protection mechanisms and resilience. The assessment of eight mental protection mechanisms is conducted in this test in total: displacement, regression, denial, substitution, compensation, overcompensation, projection, and rationalization. Normative indicators of resilience in the Russian sample are considered to be 40–50%.

5. The Leonhard-Shmishek questionnaire. This test enables assessment of the degree of accentuation of personality traits on the following scales [13]:

1. Ostentation/ostentatious type.
2. Sticking/sticking type.
3. Pedantry/pedantic type.
4. Excitability/excitable type.
5. Hypertemity/hypertemic type.
6. Distimity/distimitive type.
7. Anxiety/anxious and timorous type.
8. Exaltation/affective and exalted type.
9. Emotional breadth/emotive type.
10. Cyclothimity/cyclothymic type.

The maximum indicator for each type of accentuation is 24 points. The sign of accentuation is considered to be an indicator exceeding 12 points.

6. Diagnostics of irrational mindsets by A. Ellis. The technique is designed to determine the degree of cogitation rationality or irrationality, as well as the presence and severity of irrational mindsets. This test enables assessment of the degree of irrational mindsets. The A. Ellis test includes five scales: catastrophizing, demand of yourself, demand of other people, evaluative setting, and frustration tolerance.

7. A. Beck depression inventory. This test enables assessment of the degree of depressive symptoms.

0–9 – the absence of depressive symptoms

10–15 – mild depression (subdepression)

16–19 – moderate depression

20–29 – pronounced depression (of intermediate severity)

30–63 – severe depression

8. The Spielberger anxiety scale. The Spielberger anxiety scale is an informative way of self-assessing anxiety level at a given moment (reactive anxiety as a state) and personal anxiety (as a person's persistent trait).

When interpreting indicators, the following indicative assessments of anxiety can be used: up to 30 points – low; 31–44 points – moderate; 45 or more – high.

9. The Clinical questionnaire for the detection and evaluation of neurotic states (K. K. Yakhin, D. M. Mendelevich). This is used to identify and evaluate neurotic states. The questionnaire offers 68 questions, by answering which the test subjects should evaluate their current state according to the 5-point system. It includes six scales: anxiety, neurotic depression, asthenia, hysterical-type of reaction, phobia, and vegetative disorders. The diagnostic coefficients are summed up on six scales, and the graph is built. Indicators: more than +1.28 indicates health, and less than -1.28, painful detected disorders.

10. The Toronto alexithymia scale. This scale is a tool for measuring and evaluating alexithymia. It includes 26 questions, from which the set is interpreted in direct values, and a set-in opposite one that allows for reduction of the orientation of the test subject's answers.

Statistical analysis was performed in Statistica 12.0 and Microsoft Excel 2010 software products. Averages and medians were evaluated to describe samples. The comparison of experienced users and subgroups of newcomers was conducted using the Mann-Whitney criterion. Comparison within subgroups of newcomers with the application of the Friedman and Wilcoxon criteria. Correlation analysis was carried out using Spearman correlation coefficient.

The basic hypotheses of the research.

1. The application of the Master Kit technique in the long term has an impact on the users' psychological features, and it is reflected in the differences between experienced users and newcomers but becomes unnoticeable at 12 months from the beginning of the research.
2. This influence is noticeable starting from 3 months from the beginning of the product's use, and it is expressed in increasing changes in the studied scales within the group of newcomers. In addition, this influence is also evident in the differences between active and inactive users.
3. The criterion for fixing the use of the technique is the number of transformations. The nature of changes in the users' psychological peculiarities depends on the number of transformations, which is reflected in correlations between the studied scales and the number of transformations. The inactive newcomers do not use the technique; therefore, increasing changes in the studied scales like in the subgroup of active newcomers should not be observed.

The results of the research.

Comparison of experienced users with newcomers. To test the first hypothesis, we needed to compare two groups of users – newcomers and experienced users – at two time intervals: 0 and 12 months from the newcomers' starting to use the Master Kit product. Since in 3 months we found a spontaneous split in the newcomers group to active and inactive users, then in 12 months, comparison with the entire group would be incorrect. Therefore, the comparison of active and inactive newcomers with the experienced users was conducted separately.

The comparison of experienced users and newcomers in the first time interval, using the Mann-Whitney criterion, revealed significant differences in the following set of studied scales: hysterical-type response, demand of other people, regression, overcompensation, general tension, excitability, and exaltation. On the scale of hysterical-type response, the average values were lower for experienced users than for newcomers but were within the normal limit. On the other scales, the average values and medians of the experienced users were higher but also characterized as the norm. Fewer

points on the scale of hysterical-type response indicate that the group of experienced users was more likely to choose this type of response to stress factors than newcomers. Also, they were characterized by great demands of other people, by more emotional reactions, and by ease of entering into a state of enthusiasm. A higher level of general tension testifies to the fact that in this group, mental protection is included in coping with stress to a greater extent. It should be added that the experienced users group had a mental protection profile more even than the newcomers had: The majority of scales of mental protection presented at roughly equal level, while the newcomers used denial and intellectualization more often.

In the selection of the active newcomers group, the representatives were mostly female. Therefore, comparison with the entire sample of experienced users would be incorrect. Thus, at 12 months, we conducted and analyzed the results of the comparison with the sample of the experienced female users. The use of the Mann-Whitney criterion revealed significant differences in the following set of studied scales: anxiety, hysterical-type response, obsessive and phobic disorders, personal and situational anxiety, depression, regression, and overcompensation. On the scales of anxiety, hysterical-type response, obsessive and phobic disorders, and frustration tolerance, the experienced users showed smaller average values than the active newcomers, and on other scales, bigger ones, but they did not exceed the normal limits. No reliable differences were observed on the remaining scales. Therefore, the active users at 12 months were less anxious and were prone to depressive and neurotic states to a lesser extent than the experienced users. Against this background, the newcomers' level of mental protections involvement, including regression and overcompensation, was less.

Comparison of the female experienced users and the female inactive newcomers at 12 months revealed many fewer differences between these groups than between the experienced users and the active newcomers. They were observed on the scales of situational anxiety and hypertemity (the values were bigger for the experienced users). Situational anxiety reflects the level of anxiety at which the test person is located at the moment of the test. Apparently, the experienced users felt more anxiety during testing than the inactive newcomers, which is probably due to their larger exposure to the technique and related events. Also, they showed the inclination to a more elevated mood than the inactive newcomers.

Thus, the initial assumption that there would be noticeable differences between the experienced users and the newcomers at the stage of 0 months and less noticeable differences at 12 months was not fully confirmed. We found that prior to using the technique, the newcomers sample was indeed slightly different than the experienced users. In particular, they had a less balanced spectrum of mental protections. In 12 months, this difference became less noticeable. However, differences appeared on other scales that were not observed at the stage of 0 months. This is most likely due to accumulated changes in the active users sample, and it was investigated in detail with the application of the Wilcoxon and Friedman criteria. On the other hand, the inactive newcomers also had more changes that reduced the difference level, which fact we also studied using the Wilcoxon and Friedman criteria.

Several possible explanations can be given for this observation. The first one is that we observed the result of dynamic changes in the group of experienced users that had already occurred since the beginning of the technique's use. It is possible that this sample initially, before the use of the technique, was significantly different from the newcomers group who entered the studied sample, so the results to 12 months had differences from the results of the active newcomers. The second explanation is related to the number of transformations,

namely, to the technique's application. The experienced users had an average number of transformations of 90.44, while the active users had an average number of transformations of 264.74. It is possible that the more active technology application (the number of transformations) contributed to the comparative reduction of anxiety and depression levels among the active newcomers. The third explanation may be associated with a reduction in the effect of the technique 1 year after the start of use. Since the sample of experienced users included persons with experience of more than a year, and in the sample of the active newcomers, strictly 12 months, these changes could not be found. To test this explanation, one more test could be carried out for the experienced users and the active newcomers at 6 months. The fourth explanation of the differences found among the experienced users and the active and inactive newcomers can be found in the fact that the group of active and inactive newcomers originally differed from the experienced newcomers and among themselves. In this case, splitting the sample into active and inactive users would characterize not the effect of technique use but this regular pattern. However, studying differences between the samples of newcomers, which later became active and inactive, with experienced users, and with each other did not reveal other reliable differences.

Changes in psychological properties of active newcomers over 12 months. In the course of studying the dynamics of psychological properties among the group of active users, a tendency to change was detected in the set of scales. According to the clinical questionnaire, there were noticeable changes on the "hysterical-type" scale, where the average value of 4.1 at the stage of 0 months decreased to 3.8 at 12 months. This may indicate that when using the technique, the active users increased their levels of anxiety control, reactivity, and tension, which resulted in the suppression of this personality structure. The transformations themselves contributed to reducing the level of users' anxiety and tension, thus acting as a tool of self-regulation of mental state and control, and they also consequently allowed users to reconcile a comfortable, personally conditioned state.

It is also important that in the process of transformations, users had noticeable changes in psychophysical tension due to excessive requirements, especially those related to conflicts, to which a person often responds with mental and vegetative disorders, decreased activity, and mood disorders. Especially, the improvement in the first 3 months of trainings in the "vegetovascular abnormalities" scale of the clinical questionnaire is noticeable (9.65). This is probably because active transformations contributed to the reduction of body overstrain and to the correction of lifestyle. With the help of the Master Kit, users may have achieved autogenic relaxation during and after the process of transformation, which allowed them to achieve psychophysical relaxation.

It is worth paying attention to the fact that, in the process of transformation, the active users changed their stable preference for an intuitive cognitive style to rely on intuitive cognition as a basis for decisions and actions. Thus, according to the Epstein test, the average value of the "intuitive" scale at 0 months was 35.9, and by 12 months, 37.8; on the "using intuition" scale, the average value changed from 36.14 at 0 months to 38.80 at 12 months. This indicates that as the number of transformations increased, the users increased their intuitive ability, an element of more flexible cogitation that is associated with the ability to rely on one's own potential in an uncertain situation, contributing to the fact that in case of a problem, the test subjects were ready to use strategies for finding solutions to a greater extent that included consideration of their own intuitive impressions, without proof of their correctness, and take them as a basis for their own choices and actions.

The fact that the active users changed their psychoemotional state, in particular, that associated with depression, is especially important. In general, the users became less prone to

depression, especially after the first 3 months of active transformations; this is noticeable in the Beck depression inventory, where explicit changes are visible for the active users; especially worth noting is the leap from 0 months to 3 months. At the initial stage, the average value started at 7.9; at 3 months, the value on the depression inventory decreased by more than half to 3.5. At 6 months, the value was 3.3, and by 12 months, it decreased to 2.9. This effect seems to be related to the fact that, with the course of time, the users felt much more cheerful. One explanation for this may be that the use of the technique helped users to successfully solve their problems.

According to the Plutchik test, there were changes on a number of scales, namely, "displacement," "regression," "substitution," and "compensation." All indicators on these scales decreased by more than 10%. Thus, on the "regression" scale, the average value of 0 months, 30.1, decreased to 28.9 at 3 months, 25.6 at 6 months, and 24 at 12 months. Changes on these scales clearly indicate that the active users, in the process of transformation their mental mechanisms of protection transformed. Also, it is necessary to mention that users began to treat themselves more positively, allowing in their consciousness an idea of imperfection and weak points, not only of others but of themselves. Here, it is necessary to mention the "rationalization" scale in particular, which at 0 months has the average value of 46.4 and at 12 months of 51.98. This is a clear sign that the rational style of cogitation increasingly dominated for the users, and besides, "rationalization" became the dominant psychological mechanism by which the part of the perceived information was used for cogitation, and conclusions were drawn through which their own behavior appeared well controlled and not contradicting the objective circumstances. The "general tension" scale showed an important change: The average users' value at 0 months, 37.2, decreased to 34.05 at 12 months. In many ways, the fact that in the period of transformations, the users decreased their tension level due to the fact that the effect of the problem or question trained partially acted as a regulatory tool, contributed to this [16]. In general, the users became more successful in dealing with critical situations and responding to them while being in the most favorable condition for them, without recourse to the need for compensation for a stressful state by mental protections.

The Toronto alexithymia scale also has changes in average values: 0 months – 59.1; 3 months – 58.2; and 12 months – 55. All these changes indicate that active users increased their level of reflexivity in relation to their own mental state and expression and evaluation of emotions. It should be mentioned that the changes in this scale positively affect the person, the user in this case, because when an emotional experience occurs but is not recognized, there is a chronic tension of low intensity in the body, which requires a specific output. It is the ability to recognize this condition which contributes to the achievement of a favorable mental state [26].

The anticipation consistency test shows noticeable changes of the average values on the "personal and situational consistency" scale: 0 months – 141; 3 months – 157.6; 6 months – 160.7; 12 months – 164. The data on this scale can be interpreted as showing that the users demonstrated the ability to anticipate the course of events with high probability, to predict the development of situations and their own reactions to them, and to act with temporary and spatial prediction. Anticipation consistency is an important link in the system for coping with a stressful situation. The personal and situational component of anticipation consistency participates in the processes of predicting other people's behavior and one's own reactions in interpersonal interaction [1, 15].

According to the Leonhard test, the average value on the "excitability" scale changed from 7.2 at 0 months to 6.8 at 3 months, 6.5 at 6 months, and 5.7 at 12 months. This indicates

that in the transformation process, the threshold of excitability gradually decreased during all 12 months for the active users to a comfortable level for them. Similar changes were observed on the "anxiety" scale, where the average values of the B indicator at 0 months, 10.7, decreased to 9.7 at 12 months. It also shows the trend of reducing the anxiety level among the active users within 1 year. The "exaltation" scale showed changes as well, where the average value at 0 months, 12.8, changed at 12 months to 13.4 – here, the forming factor of such changes is the fact that users, with help changing their mental state in the period of active work, learned to express excited mood with enthusiasm, immoderate and unrestrained exaltation for the simplest things and events accompanied by an emotional response, and an assessment of their own traits, appearance, abilities, and capabilities [7]. This does not in any way reflect that the users' state became unstable, but on the contrary, it means that the trainings contributed to a clear differentiation of the experienced states and their further manifestation at the emotional level, without suppression and concealment.

To summarize, the dynamics of the active users in the period from 0 months to 1 year show a number of patterns that the active users not only decreased their overall mental and emotional tension but also developed certain personality traits that contributed to their more comfortable state, so their ability to cope with stress increased, the users became more congruent, they started to express their concealed emotions, their mental states became more favorable, and both their perception of the world and their reaction to situations changed positively. In general, the users became more resistant to stress.

Comparison of subgroups of the active and the inactive newcomers. Comparing the indicators of descriptive statistics for all periods (3, 6, and 12 months), a similar tendency is observed: The active users had (usually slightly) higher medians and averages than the inactive users, with the rare exception when either they are equal or the active users have slightly lower ones (the difference is very small, so it can be neglected). The exception is the rationalization scale of the Plutchik test. The active users have rather lower average indicators on this scale at 3 months than the inactive users (inactive: 58.75; active: 46.42). The same is true for median indicators (inactive: 58.33; active: 50.00). This can be explained by the fact that people who in everyday life are dominated by rationality and logical cogitation, and who, accordingly, have clearly expressed rationalization as a protection mechanism, show less interest in the simulator and do the transformations less often; therefore, they are included in the category of the inactive users. On the contrary, the active users are more emotional and impressionable; therefore, they show low indicators on the rationalization scale. When measured at 6 and 12 months, these differences are slightly smoothed, while the general trend, that the medians and the averages on the rationalization scale are higher for inactive users, remains.

The Mann-Whitney criterion showed the following differences when comparing the active and inactive users: When measuring the indicators after 3 months of simulator use, both groups are reliably different on the rationalization scale of the Plutchik test, which was evident from the descriptive statistics and explained above. Other differences during this period were not detected. At 6 months, reliable differences were established in the Beck depression inventory. The indicator on this scale was lower for the active users. This means that the simulator did not just positively affect the severity of depressive symptoms. The effect directly depends on the frequency and regularity of the transformations. However, on the other hand, these changes in the criterion indicator could also have occurred because users inclined to apathy and a lack of dynamism (which is typical for depression as well) could have used the simulator rarely, in particular because of these psychological peculiarities.

Perhaps, therefore, the Beck inventory scale showed higher indicators in this group than among those who used the simulator actively.

Differences at 12 months were detected on several scales. In the results of the Yakhin and Mendelevich questionnaire, the differences between the active and the inactive user groups were revealed on three scales simultaneously: the active users turned out to be less inclined to a hysterical-type response and to obsessive, phobic, and vegetative disorders. This means that active simulator use generally reduced the severity of general neurotic symptoms, especially the anxiety circle.

Also at 12 months of use, differences were observed between the described groups on the alexithymia scale. In psychology, alexithymia is described as the difficulty in distinguishing, defining, and describing (verbalization) one's own and other people's emotions and bodily sensations [22]. The active users turned out to be less inclined toward it than the inactive ones. In this case, it is possible to state quite confidently that this is connected with the peculiarity of the technique itself. The transformations on the simulator involve work through speaking (detection of mindsets, etc.) and imply the detection and verbalization of internal feelings and problems and their interrelations. During their work with the simulator, the users learn to listen to their feelings and thoughts. Perhaps due to this fact, the active users showed a lower alexithymia level, since this feature is revealed after quite a long period of use, allowing one to associate these differences with the influence of the simulator.

Also the differences between the active and the inactive users are first revealed on the three scales of the Leonhard test at 12 months of use. The active users have less pronounced manifestations of excitable accentuation than the inactive ones; in other words, the active users are calmer and more balanced than the inactive ones. The same differences are revealed at the distimity (fatigue) scale. This also raises a number of questions. Perhaps, the technique itself affects the adaptation of the personality and the severity of this or that accentuation. But in this case, these differences are revealed depending on the frequency of use of the methods, and this means that they can be explained by the fact that the user is just busy with something else; the fact that the person considers the transformations as a regular task distracts one from everyday problems, relaxes, and therefore reduces one's anxiety and fatigue. The answer to the question of how the differences are associated with the technique itself requires further study. Also, the Leonhard test reveals differences on the exaltation (emotional breadth) scale. From the data analysis, it is obvious that the active users are more inclined to exaltation. This rather corresponds with the data on the rationalization scale of the Plutchik test. Active users are more prone to emotional perception of the world than to rational and logical perception, which is most pronounced in the long-term use of the simulator (12 months).

Summing up this part of the research, we can preliminarily make the general conclusion that, with the course of time, users with different psychological peculiarities formed different "styles" of simulator use. More emotional and impressionable personalities used the simulator actively; more rational and calm ones used it less often. Perhaps, the effect of this technique on different people is different.

Without studying the correlations between the number of transformations and psychological changes, it is impossible to state that more frequent and regular use of the technique has a more significant effect on the users.

The correlation analysis. The research applied the Spearman rank correlation coefficient. Based on the results of the active users' analysis, a direct relation between the number of completed trainings at 3 months and the "self-esteem and cogitation rationality" scale of the Ellis test (0.467) was revealed, which means that increasing the number of

completed transformations increased the adequacy of the user's self-esteem and estimation of her own actions and confidence in her actions, and rational cogitation took place more often.

An inverse relation is established with the regression scale of the Plutchik test (-0.619) according to the completed trainings at 3 months, indicating that with an increase in the completed transformations, the user experienced regression as a psychological tool less often. The user became more and more resistant to frustration, and her behavior met the objective conditions of the situation. It is worth noting that the inverse relation with regression is established for the entire period of the transformations (completed and uncompleted) at 3 months (-0.534).

An inverse relation is established with the "hypnoability" scale of the intuitivity questionnaire by Naumenko (-0.487) according to completed transformations at 3 months, which in turn points to the fact that the successful completion of the transformation has a positive effect on the user, as she becomes more resistant to the influence of other people's opinions.

An inverse connection is established with the "ostentation" scale of the Leonhard test (-0.549) for completed transformations at 3 months. This means that completed transformations contributed to the decrease in the manifestations of character traits' accentuation, ostentation, in particular; in other words, the user became less committed to peacockery, lying, and excessive artistry; the level of egocentrism decreased; and the awareness of her own actions increased.

It is worth noting that the inverse relation with ostentation is maintained for the entire period of the transformations up to 3 months (-0.58).

A direct relation is detected on the "asthenia" scale of the clinical questionnaire for the period from 3 to 6 months (0.437). That means that the successful completion of the transformations of a deeper nature influences the user's psychophysiological aspects to change; in particular, the probability of chronic fatigue syndrome decreased, and the user became more resistant to monotony. Also, a direct relation is detected for the users in the period of 3–6 months on the "vegetative abnormalities" scale (0.512), which also indicates improved wellbeing and the reduction of the users' psychosomatic disease symptoms: With a number of successful transformations, they generally started to feel better.

In the period from 3 to 6 months, the users showed direct dependence on the number of uncompleted transformations on the "personal and situational" scale of the anticipation consistency test (0.444). This indicates that at this stage of transformations (uncompleted transformations), the users showed the ability to anticipate the course of events and to predict the development of situations and their own reactions to them more often.

A direct relation was established in the period from 0 to 6 months (progressive total) between completed trainings and the "vegetative abnormalities" scale of the clinical questionnaire (0.443), as well as the "demand of other people" scale of the Ellis test (0.529), which is explained by the fact that, at the moment of the trained tasks, the user decreased her expectations and demands of himself, and critical cogitation began to prevail. Also, the dependence at this scale is established in the entire period of trainings (completed and uncompleted) for 0–6 months (0.541).

A direct relation in the period from 0 to 6 months was established between uncompleted trainings and the "time" scale of the anticipation consistency test (0.563), which means that the users manifested temporary anticipation consistency during the period of transformations themselves, which, in turn, contributed to the formation of the specific knowledge and actions system for the user that provided effective forecasting.

A direct relation was established in the period from 6 to 12 months between the "demand of other people" scale of the clinical questionnaire (0.561) and completed transformations.

A direct relation was established in the period of 6–12 months between the "displacement" scale of the Plutchik test and completed trainings, which indicates that the success of the transformations affects the deep structures of the user's personality forming her higher awareness and thus replacing unconsciousness of actions and stability of events with consciousness without displacement. The same relation is detected on this scale at all stages of transformations (completed and uncompleted) in the period of 6–12 months (0.459).

A direct relation in the period of 6–12 months was found between unfinished transformations and the "pedantry" scale of the Leonhard test, which may be because the problems that were not worked out at this stage of the task directly influenced the user's personality traits, contributing to the observance of the usual order in trifles, precision, and accuracy. The same dependence is observed in ratio of the completed and uncompleted transformations of that period (0.462).

Direct relations were detected in the period of 0–12 months (progressive total) between the completed transformations and the "catastrophization" (0.467), "demand of other people" (0.586), and "self-esteem and cogitation rationalization" (0.523) scales of the Ellis test, and a direct relation with the "displacement" scale (0.467) and an inverse relation with the "regression" scale (-0.464) of the Plutchik test. Also, inverse relation in the given period was found between the completed transformations and the "intuitivity" scale (-0.601) of the intuitivity test by Naumenko, which is also reflected in the final completed and uncompleted transformations (-0.468). The "ostentation" scale of the Leonhard test showed an inverse relation with the completed transformations in the period of 0–12 months (-0.475).

We also revealed the dependence of both the uncompleted transformations for the period of 0–12 months on the "projection" scale (-0.469) of the Plutchik test and of all the trainings in aggregate on this scale (-0.465). Also, the "hypnoability" scale of the intuitivity test by Naumenko (-0.502) shows an inverse relation with the uncompleted transformations.

Speaking about the correlation with the ratio of the completed/uncompleted transformations (relative value), we have discovered the following dependences: on the "hysterical-type reaction" scale (0.365) – this reflects the inherent anti-phobic reaction outside, which gradually, with the number of the transformations completed by the user, was pushed back as a mechanism of specific dissociation. It should be said that the more transformations the active user completed, the more strongly the success of this transformations affected her psychoemotional state, which is noticeable on the "obsessive and phobic disorders" scale (0.397) and the "vegetative abnormalities" scale (0.31) of the clinical questionnaire.

An important aspect is that the users effectively coped with the manifestation of the blocked mental protection mechanisms [17.8] in the course of the transformations; in particular, this is revealed by the "displacement" scale (0.341) of the Plutchik questionnaire, which established a direct relation with the number of completed transformations, and it indicates that the more transformations are completed, the less clearly the displacement is manifested by the user as the mental mechanism in the process of transformation. The "intuitivity" scale (-0.417) of the Naumenko test revealed an inverse relation with the number of completed transformations, meaning that the more transformations are completed, the more weakly the perception of objectivity is manifested by the user at an unconscious level. The fact that the active users experienced the displacement of locus of control is not excluded.

The data established on the "catastrophization" scale of the Ellis test (0.538) indicate that in the period of 5–12 months, due to the trainings, the user managed to achieve changes and learn to evaluate each adverse event as rationally as possible with adequate response to the consequences [7].

Also, an inversely proportional dependence on the number of the user's transformations of the "pedantry" scale of the Leonhard test (-0.479) was established. Likely, the effect of releasing the person after the transformations became significant for her contributed to it. It subsequently could result in the user's revaluation of her own norms and expectations.

It is important to mention that the active users have a direct relation with the quantity of transformations completed during the year. The quantity of uncompleted transformations decreased each month with the number of fulfilled transformations. This partly means that, in the course of time, the active users still considered the transformation as a priority task, the quality of the trained tasks remained at the same level, and the number of completed tasks increased.

In conclusion, according to the correlation analysis, the tendency of the relations between the number of transformations and some psychological peculiarities was established, especially on the scales characterizing the personality's stress resistance. In other words, the shifts at the psychoemotional level of the active users are correlated with the success of completed transformations. In particular, the users obtained a more stable mental state and became less anxious while feeling less stress.

The discussion of the research results.

Studying the differences between the experienced users and the newcomers revealed that the nature of the changes as the technique is used is more individual than we initially anticipated. It is likely that different starting positions are an important factor in the depth of the subsequent dynamics of the psychological properties associated with the response to stress. Indicators of the newcomers at scales related to stress resistance – the clinical Yakhin and Mendelevich questionnaire, the Beck depression inventory, and the Spielberger test – were slightly higher than those of the experienced users. Therefore, our first hypothesis was only partially confirmed, and in a way we did not quite expect. The difference in the quantity of transformations for the experienced women and the active female newcomers (their number is almost 2.5 times higher) may explain the observed effect.

The dynamic comparison of the active and inactive newcomers subgroups allowed us to partially confirm the first and second hypotheses. The newcomers subgroups did not differ from each other at the starting point, but from 3 months differed more and more, especially on the scales associated with stress resistance. While the inactive users had either no dynamics or increased nervous tension, the active users had relatively reduced nervous tension. The subgroup division into active and inactive users allowed us to note the influence of direct use of the simulator. A number of studies have shown that passive psychoeducation itself helps to reduce depression and anxiety symptoms. However, this effect is short-term and less important after a short period of time. We can explain the lack of differences between the subgroups of newcomers at the initial stage, who subsequently became the active and inactive ones, as both groups learned about the Master Kit product and the ideas related to it and expressed a desire to purchase it. Perhaps this also affected the higher stress indicators in comparison with the experienced users. However, the fact that the active newcomers used the product and the inactive ones stopped perhaps allowed them to escape from the initial effect of psychoeducation and enthusiasm with the idea to the practical application of these ideas and the simulator, which fixed the changes obtained.

The third hypothesis was also partially confirmed. First, as was noted earlier, the inactive users did not show dynamics analogous to those of the active users in the absence of transformations. Secondly, the quantity of transformations had a number of correlations among active newcomer users, which demonstrates that the assumption about the possibility of using the quantity of transformations as a criterion for the product's effectiveness is correct. Thirdly, not only the quantity of transformations but also mainly the quantity of completed transformations is important, as the uncompleted transformations had no correlation with psychological peculiarities. It should also be noted that the ratio of completed and uncompleted transformations, which led to an overbalance in favor of the completed ones in dynamics, influenced the scales' indicators.

Limitations. The procedure of the users' selection is the first critical remark on the research protocol. The purpose of our research was to assess the possibility of the technique's use's influencing the psychological peculiarities of healthy users, because the technique is not intended for the treatment of clinically expressed mental disorders. The test subjects for the newcomers group were selected from individuals who applied for the purchase of the software product. This did not allow us to isolate the factor of involvement in the ideological promises of the technique, which were known and accepted by this group even before the technique's use. However, the spontaneous division into subgroups allows us to assert that the application of the product became the main influence factor on psychological peculiarities. The lack of initial data for the experienced users group (only over 12 months from the start of use) is an important remark as well. This prevents us from unequivocally stating that the psychological peculiarities that we observed in this group are typical for all users in this time period, but this group nonetheless contains important information when compared with the group of newcomers. A more accurate data on this issue could be obtained by increasing the sample of experienced test subjects, as well as by comparing the data of the newcomers group with those of a similar group that goes through the same stages of the experiment.

Conclusions. The conducted research allowed us to reveal the changes of psychological features of the Master Kit users depending on duration of technique use and quantity of transformations. These changes were most noticeable in the indicators related to the personality's stress resistance. The number of transformations, namely, the direct application of the simulator, can be the indirect indicator of the technique's effectiveness; however, this pattern more likely takes place in the whole group but cannot reflect individual effectiveness. Further research will allow us to define the factor of the technique's application and to determine the target of impact and better target possible applications of the Master Kit technique.

Conflict of interest statement

The studied group had a personal financial interest in conducting the research, as the cost of research and the researchers' work were paid for by Super Ego company.

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