

PSYCHOLOGICAL SUPPORT FOR YOUNG JUDOKA

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ABSTRACT. *Objectives.* The paper deals with the substantial part of the organization and carrying out of the psychological training in the annual cycle of training sessions of judoka at the initial stage of training. *Methods.* The psycho diagnosis has been conducted in the sport institutions of the city of Ivano-Frankivsk (Ivano-Frankivsk oblast, Ukraine) among 270 male judoka, aged 10-12. The following methods have been used: theoretical – the scientific and methodological sources analysis, synthesis, comparison and generalization of the obtained data; the practical ones – observation, discussion, the “ascertaining” and “forming” experiments, questionnaire poll, testing (Spielberger’s State-Trait Anxiety Questionnaire, Motivation Questionnaire, J. Rotter’s methods of measuring the subjective control level, Subjective Self-Rating Questionnaire, V. Morosanova and E. Konož’s method of diagnosing the self-regulation indices, the FPI Test), mathematical statistics methods, the author’s psychological training program aiming at facilitating the judoka’ self-regulation at the initial stage of their training. *Results.* The conducted psychological training with the psychological correction elements aiming at the development of the psychomotor and personal qualities enabled the improvement of using various fight techniques and tactical means by the sportsmen of the experimental group. The young judoka improved their understanding of the fight strategy while training and contesting. The positive results of the training influence reflected on the constructive system of establishing relationships with the friends, rivals, and relatives. The use of the psycho-correctional program enabled the significant rise of the judoka’ self-regulation level in training and contesting. The experimental group members acquired the ability to realize and functionally combine the effective regulatory parts. *Conclusions.* The research results proved experimentally that the important criterion of optimizing the psychological, technical, tactical and physical training of judoka is the formation of their psychomotor processes, namely the functional motility, nervous system forces, the latent period of the simple and complex visual-motor reactions.

Key words: *psychological support, psychological training, judo, psychomotor system, self-regulation.*

INTRODUCTION

Nowadays the psychological training as one of the most popular forms of group influence attracts attention of many practitioners in the sphere of sport [2]. At the same time, there is a noticeable lag in the theoretical comprehension of the accumulated empirical data. The sources of many problems emerging while using psychological means lie in their methodological culture.

Consequently, some experts [1, 10] treat the psychological training as peculiar tools helping participants control their conduct. Cynarski, W. [7], for instance, claims that the psychological training as a research object comprises general regularities of various changes outbreak in the personality sphere regardless to the conceptual and procedural nature.

The conducted analysis of the prominent scholars’ researches [1, 2, 3, 7, 10] enabled us to conclude that the process managing the psychological training of young judoka at the initial stage of their training has never received a thorough investigation.

The Research Aim lies in the empirical investigation of the efficiency of the use of the psychological training of young judoka at the initial stage of their training.

MATERIAL AND METHODS

The psycho diagnosis has been conducted in the sport institutions of the city of Ivano-Frankivsk (Ivano-Frankivsk oblast, Ukraine) among children practicing judo. The overall number of the research participants is 270, namely male judoka, aged 10-12. We took into consideration the conduct peculiarities, as well as the specific conditions necessary for the work with the selected contingent [8, 10]. The selection age range is determined by the fundamental psychological peculiarities of the sportsmen at the initial stage of their training.

In the paper the following methods have been used: theoretical – the scientific and methodological sources analysis, synthesis, comparison and generalization of the obtained data; the practical ones – observation, discussion, the “ascertaining” and “forming” experiments, questionnaire poll, testing (Spielberger’s State-Trait Anxiety Questionnaire, Motivation Questionnaire, J. Rotter’s methods of measuring the subjective control level, Subjective Self-Rating Questionnaire, V. Morosanova and E. Konož’s method of diagnosing the self-regulation indices, the FPI Test), mathematical statistics methods, the

author’s psychological training program aiming at facilitating the judoka’ self-regulation at the initial stage of their training.

We have formulated the conception aiming at fostering the formation of young judoka’ system of self-regulation for their achievement of success in training and contesting (Table 1).

The training conception determines the motivational orientation of the training. The formation of motivation presupposes the organization of a specific environment in which a person activates a set of motives necessary for learning and work. Our task was to enable the participants to feel the influence of the motivational forces and furthermore to acquire the knowledge of how to manage them.

Each of the outlined training periods comprised certain stages of its realization, namely the introductory, basic tasks solving, analyzing, controlling and evaluating ones.

It is worth mentioning that at the introductory stage the instructional advice was given as for the peculiarities of its procedure, rules of conduct, etc. The second one presupposed the provision of the adequate feedback between the judoka and the psychologist. The psychological training of sportsmen is especially important in case of single combat. The sportsmen’s activity analysis aims at tracing their mistakes and making the appropriate corrections. Observation and self-analysis prove to be rather helpful. Especially topical and scientifically substantiated is the controlling and evaluating stage, which ensures the adequacy of the development of all the previous components of the psychological training model. At this stage the sportsmen were asked to independently evaluate their work, to mention the drawbacks and focus on the positive moments.

Table 1 The Program of the Psychological Training of Judoka at the Initial Stage of Their Training

№ i/o	The Psychological Training Period	The Training Orientation	The Number of Classes	Duration in Hours
1.	Initial	The formation of motivation for practicing the psychological training. The elimination of the psychological stress of the training course subjects. Seeking for the mutual understanding between the training organizer and the members of the experimental group. The cognitive processes development (attention in particular).	8	12
2.	Basic	Teaching the setting of the aim of the training and competitive activities. Acquiring the regular breathing technique, as well as the technique of the group of muscles relaxation. The formation of emotional stability and self-confidence. The transformation of the personal qualities (anxiety, aggressiveness). The development of skills for the elaboration of the program of actions in stressful situations.	15	22,5
3.	PreCompeting	The formation of motivation for achieving success, responsibility for the professional development. Mastering the regular breathing technique, as well as the technique of the group of muscles relaxation. Teaching the accumulation of thermal feelings in the body segments. The development of self-evaluation, reflection, the ability to switch attention, capture the subject images from the competing fights, make decisions on the correction of the technical and tactical actions.	12	18
4.	Competing	Teaching the ability purposefully to control the personal emotions, movements, volitional processes.	10	15
5.	Rehabilita-tional	The formation of the positive judgements about the activities result.	3	4,5
Total			48	72

For the ensuring of the psycho-correctional effects in the “forming” experiment, the following methodological techniques have been used:

1) the investigation into the results of the instructive, training and competing activity of sportsmen, the fixing of the interim indices necessary for the tasks fulfillment;

2) varying the structure of the tasks (studying the same phenomenon for a number of times varying the conditions and taking into consideration each sportsman's individual peculiarities and level of training);

3) setting new solutions (the fulfilled task is offered once more for finding a new means or an original way of its implementation).

The "forming" experiment lasted for one year within which the experimental group judoka exercised the program of raising the conscious self-regulation.

RESULTS

The psychological diagnosis results proved that the latent period of the visual-motor reaction of judoka at the initial stage of their training reaches $304 \pm 3,5$ ms. As for the complex reaction, its duration is equal to $352 \pm 2,1$ ms. It should be mentioned that the latent period of the simple visual-motor reaction of the sportsmen lasted less than the choice reaction.

We found out that the simple visual-motor reaction of 39,63% of judoka is below the average level of formation, and that of 11,48% – to the low level. 36,30% of judoka have the average duration of the process under study, while the index of 9,26% is above the average.

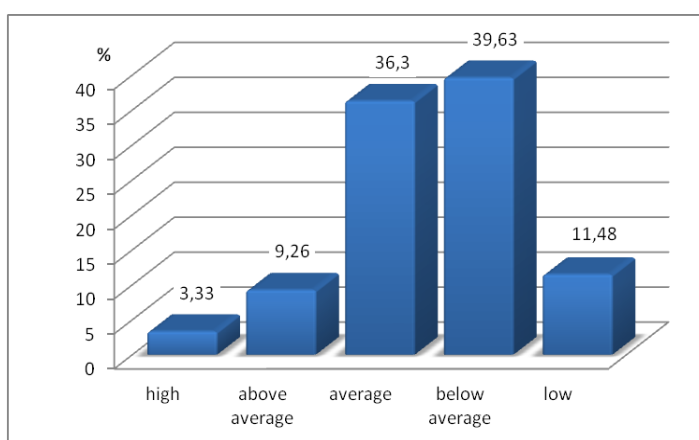


Fig. 1. The Differentiation between Judoka according to the Level of the Latent Period of the Simple Visual-Motor Reaction (%).

Fig. B reflects the results of diagnosing the level of the complex visual-motor reaction of judoka at the initial stage of their training. The high (2,96%), average (32,96%) and above average (7,41%) values of its development are characterized by the quite low period of reacting to the external irritants among the majority of the judoka.

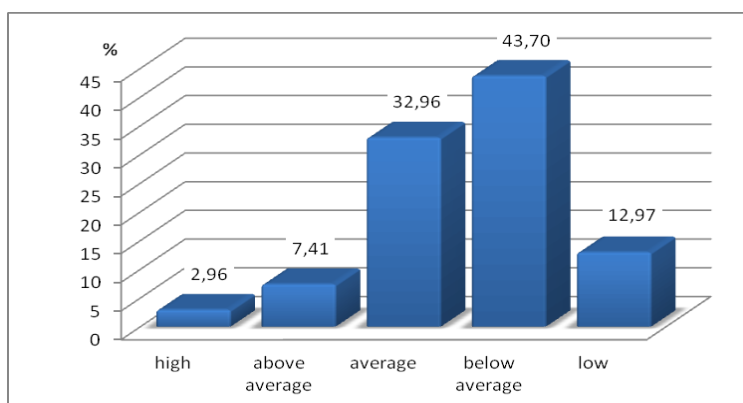


Fig. 2. The Differentiation between Judoka according to the Level of the Latent Period of the Complex Visual-Motor Reaction (%).

The "ascertaining" experiment helped to establish a high correlation relationship between the low indices of the simple and complex visual-motor reaction of judoka at the initial stage of their training ($r = 0,79$ by $p \leq 0,01$). It was found out that these sportsmen slowly acquired the work methodology and fulfilled the set tasks ineffectively.

The scale of functional mobility of the nerve processes is determined by the maximum rate of the irritants exposure at a high speed, by which the subordinates made not more than 5,5% of mistakes.

The results of diagnosing the index of functional mobility of the nerve processes make it possible to claim that 52,96% of sportsmen possess the average level of its formation (100-120 irritants per 1 minute), 6,30% – a high (130-150 irritants per 1 minute) and 40,74% – a low (70-90 irritants per 1 minute) ones.

The next research stage presupposed the measuring of the force of the nerve processes of judoka at the initial stage of their training. The following percentage characterizes the effectiveness of the tasks fulfillment: low – 41,11% , average – 7,04%, high – 51,85%.

Taking into consideration the fact that the systematic exertion is accompanied with the afferent impulses, reaching the nerve system and determining the formation of the excitability and suppression thresholds, we may conclude that judoka with the high level of the investigated phenomenon are characterized by the endurance of the basic nerve processes alongside with the age-related morphological and functional changes in the brain.

Using the tapping test methodology “Diagnost-1” [4], we found out that the general number of shots produced by the sportsmen with the help of the high-sensitive apparatus constitutes $139 \pm 2,2$. The experiment showed the following results of producing shots within various periods: from the 1st second to the 5th second – 24 shots, from the 5th second to the 10th second – 26 shots, from the 10th second to the 15th second – 25 shots, from the 15th second to the 20th second – 24 shots, from the 20th second to the 25th second – 24 shots, from the 25th second to the 30th second – 19 shots. As we can see, the most productive is the second time set. Later on the result is somewhat preserved, though lowers within the next three time periods.

We established a positive correlation between the low level of the formation of the force of the nerve processes and the indices of the movements speed of judoka at the initial stage of their activity ($r=0,78$ by $p \leq 0,05$).

Thus, the variability of parameters of the psycho-functional system of judoka is not an artefact, but a general quality of searching for the current accumulating adaptation of the body to the circumstances of the inner and outer environments. The existence of this very way is reflected in the excess coefficient of variation of the average duration of the task fulfillment by the judoka with the high level of the sensorimotor reactions formation.

During the organization of the “ascertaining” experiment we found out that the majority of the informants (71,11%) are characterized by a high level of responsive anxiety.

It is necessary to mention that a high level of personal anxiety has been diagnosed (48,14% of the informants) which can be caused by the progressing psychological stress while training and contesting. The moderate and low levels of the formation of personal anxiety are diagnosed in 32,59% and 19,27% of judoka respectively.

It is notable that 74,36% of the informants with the high level of personal anxiety have the motivational dominance of the desire to avoid failures, and 25,64% – the desire to achieve success. At the same time the judoka with the non-anxious behavior the achievement drive prevails over the avoidance of anxiety motivation: 81,41% versus 18,59% respectively.

The a result of the research a positive correlation has been traced between the high level of responsive anxiety and the index of the latent period of the simple visual-motor reaction ($r = 0,70$ by $p \leq 0,01$).

Using the Level of Subjective Control Method [8], we found out that about 15,92% of the participants declared their readiness to take responsibility for the things occurring with them and their opponents.

Approximately 23,00% of the sportsmen with the high level of the situational anxiety explain their state by the circumstances. They are inclined to impose the responsibility for their own deeds on other people. More than a half of the high-anxious respondents (62,82%) did not exactly take responsibility for the committed, but explained their conduct by the influence of the stressful situations of the training sessions and contests.

Correlating the level of aspiration and the subjective control index, we have revealed a high level of correlation between the avoidance of anxiety motivation and the low activity control level ($r = 0,79$ by $p \leq 0,01$).

It has been found out that at the initial stage of their training 69,63% of the engaged 270 judoka possess a poorly developed self-control system. It should be mentioned that 57,04% of the informants show a

close relation between the indices of the responsive anxiety and the low activity control level ($r = 0,73$ by $p \leq 0,01$).

The high level of the conscious management as well as the harmonious development of certain regulation tiers indicate young judoka' capability of the adequate evaluation of the training and contest situations and the thorough planning of their actions. Taking into consideration the testing results, we may claim that the majority of the informants are unable to organize their activity independently. Judoka prove to be dependent on the point of view of the others. Lacking assistance, they run a risk of having serious control problems.

At the current stage of the development of the psychological science there are some contradictions concerning the understanding of training as a peculiar branch of the practical psychology. In the broadest context, the term "training" is used for characterizing various forms of the group psychological work [2]. At the same time there are such terms as "group psychotherapy", "psycho-remedial group", "active learning group", "practical experimental laboratory" [3]. In this research we characterize training as a set of group methods for the formation of self-regulation.

At the second stage of the research we formed the experimental and control groups of judoka, each consisting of 22 participants. The "forming" experiment lasted for one year, when the experimental group members exercised the programme of raising the conscious self-regulation. The psycho-correctional training consisted of forty-eight classes. Each class usually started and ended with the auto-training warm-ups consisting of the relaxation exercises and attention-focusing drills.

The psychological training showed that the individual style of self-regulation of the judoka of the experimental group differs from that of the sportsmen of the control groups (Fig. C).

In particular, it was found out that the experimental group members possess a high-level need in the conscious activity planning. Their activity plan proved to be realistic, detailed, hierarchical and stable.

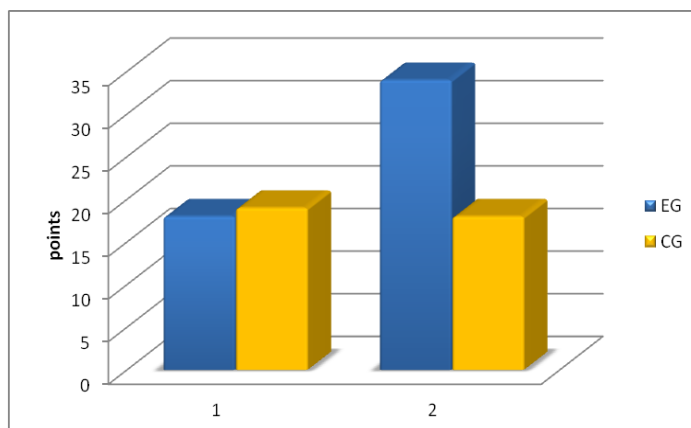


Fig. 3. The Characteristic Features of Judoka Self-Regulation Individual Style (according to V. Morosanova and E. Konož) before (1) and after (2) the Psychological Training.

Particularly important in case of the development of judoka' self-regulation is the formation of the personal physical Self (Body Ego) that is the understanding of one's own physical image, the comparison and evaluation of oneself according to the courage standard. This image is the basis of small judoka' numerous ardors.

Aiming at helping the experimental group members pass the difficult period, we established sincere and friendly relations, empathized with their fears concerning the participation in different-level contests, valued and respected the sportsmen as they were.

It has been found out that the adults' benevolence relieves the anxiety in interpersonal relations, helps children overcome the reserve in their inner world, facilitates their positive attitude to the personal Self, and shows the so far unknown but approved by the surrounding people personal qualities.

The verified data have been obtained concerning the transformation of the attention type in the group of judoka practicing the psychological training ($p \leq 0,01$). The majority of the sportsmen possessed the ability to switch their attention from one irritant to another within a minimum period of time, to focus their attention on the factors of the outer and inner environments as quick as possible.

After the psychological training implementation we observed the considerable rise of the self-regulation index of the experimental group judoka. They became more confident in themselves, firm and

strong-minded in their use of their physical, technical and tactical activity for their victory in the contest. They also had the lowered indices of the responsive anxiety, and the personal anxiety index did not exceed the limits. That ensured the development of willingness to cognize the value orientations, to assert oneself in training and contesting, to acknowledge judoka in the referent environment. The reconsideration of various critical situations and inner conflicts opens new horizons. This level of the self-regulation development balances the emotionally exalted need for self-realization. Judoka acquire the understanding of the importance of their self-assertion not only before others (rivals, people of the same age, parents, trainers), but also before themselves. This very self-assertion brings confidence in themselves, helps get rid of various complexes, activates the development of the judoka' self-consciousness.

The center of the psychological development of judoka at the initial stage of their training was the formation of the psychological processes (memory, attention, and thinking) voluntariness. Their intellectualization, inner mediation are ensured via the primary assimilation of the system of notions. Deliberateness reveals itself in the ability of conscious setting the aim, seeking for and finding the means of its achieving, overcoming difficulties and obstacles. Within the training course the experimental group children studied how to control their conduct, since from the first day of their stay at the sport institution quite a high level of responsibility was required from them.

The conducted psychological training has resulted in the drastic changes in the neuro-dynamic qualities of the judoka at the initial stage of their training. Thus, the duration of the visual-motor reaction has reduced to the level of $274 \pm 1,2$ ms. As compared to the first stage of the "forming" experiment this index has somewhat increased in the control group (to $305 \pm 1,4$ ms).

Fig. D shows the duration of the latent period of the complex visual-motor reaction before and after the psychological training. The verified changes of the experimental group sportsmen are as follows: from $348 \pm 1,6$ ms to $324 \pm 1,6$ ms by $p < 0,001$.

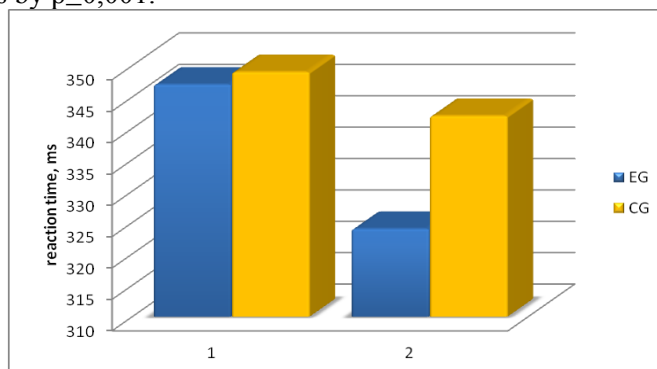


Fig. 4. The Duration of the Latent Period of the Judoka' Complex Visual-Motor Reaction before (1) and after (2) the Psychological Training (in ms).

The use of the psychological training for the development of the psychomotor abilities and personal qualities contains the elements of the psychological correction. After its implementation we observed the improvement of using various fight techniques and tactical means by the judoka of the experimental group.

CONCLUSIONS

1. The research results proved experimentally that the important criterion of optimizing the psychological, technical, tactical and physical training of judoka is the formation of their psychomotor processes, namely the functional motility, nervous system forces, the latent period of the simple and complex visual-motor reactions.

2. One of the advantages of the suggested training method lies in enabling the investigation into the complex, emotionally important questions of the personal development in the safe environment of training, with the attention paid to the threatening and dangerous situations of the real life.

3. It has been proved that after the conducted psychological training with the psychological correction elements aiming at the development of the psychomotor and personal qualities we observed the improvement of using various fight techniques and tactical means by the sportsmen of the experimental group. The young judoka improved their understanding of the fight strategy while training and contesting. The positive results of the training influence reflected on the constructive system of establishing relationships with the friends, rivals, and relatives.

4. The use of the psycho-correctional program enabled the significant rise of the judoka' self-regulation level in training and contesting. The experimental group members acquired the ability to realize and functionally combine the effective regulatory parts.

5. The obtained data convincingly prove that the trained sportsmen possess a certain autonomy in their activity organization and plan their work and behavior independently. They have the ability to outline the primary conditions of achieving the aim in the current situation, as well as in the nearest future, which reveals itself in the correspondence between the program of actions and the plans of training and contesting, the adequacy of the obtained results and the set aim.

DISCUSSION

The conducted research does not cover all the aspects of the subject matter. In perspective, the further scientific investigations into the forming possibilities of the psychological training at the various levels of judoka training can be conducted, aiming at the elaboration of the specific content of the training sessions.

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