

AUTO- AND HETEROSUGGESTION IN BOAT ROWING

Omelyananko V.I.
Higher Sportsmanship School

Annotation. *Purpose.* Creation of a complex integrated person-centered psychological model of sportsmen preparation for competitions in rowing and canoeing on base of heterosuggestion which includes psychological methods and their modifications as well as Rajah yoga system mindset trainings. *Material, methods.* In research took part 20 sportsmen in boat rowing of 1st junior category aged 15 and 16 years old with parental consent. Different variants of combinations of psychological techniques developed psychotherapist with the participation of the team's coach, taking into account specific situations arising for each athlete individually. *Results.* Found that the experimental group was superior to the competition in scoring control group. Correction rowing technique was observed within 1-3 sessions. An efficiency of use of the developed model in the psychological preparation of rowers. Successfully carried out programming, simulation, correction of motor skills and psycho-emotional state of athletes in training and competitive periods. *Conclusions.* Stability of high sports results observed on the background of the post-hypnotic suggestion and formed a positive psycho-emotional and motivational attitude. The advantage over heterosuggestion under autosuggestion.

Keywords: boat rowing, sportsmen, suggestion, action programming, competitions modelling, skills correction.

Introduction

Achievement of high sport results requires compulsory including of methods of psychological influence on sportsmen in training. Such approach is connected with need in prevention from overloaded states and nervous frustrations, in formation of mental-emotional stability, mobilization of psycho-physical forces of organism before important competitions, programming of sportsman's actions and required state, simulation of competition period and correction of technical sportsmanship, because training and competitions are connected with maximal physical and mental-emotional loads [6, 9].

In sport practice there widely used such methods as autogenic training (AT), ideo-motor training (IMT), hypnotic-ideo-motor training (HIMT), auto- hypnotic-ideo-motor training (AHIMT) [1,5,7,8]. AT- is a method of self-suggestion, method of self immersion in trans and against the background of altered state of consciousness (ASC) introducing of mental settings. "Autosom" – means "self", "genous" - giving birth; IMT – means regular, conscious, repeated, active imagination and sensing of mastered skill. AHIMT –is a system of trainings, oriented on sportsman's ability to independently use reserves of his organism with the help of auto-hypnosis.

Influence of suggestions in ASC on physical workability was studied by scientists: I.M. Nievskikh, K.Z. Zriachykh (1920), K.I. Platonov, M.E. Maystrova (1932), L.P. Slobodanyk (1963), K.I. Platonov (1962, 1968), V.L. Raykov, A.S. Poberezhska, Yu.V. Moykin (1975), B.A. Viatkin (1981), B.V. Lomov (1991) and other. Suggestion (from Latin "Suggestio") – is a psychological influence on human consciousness, under which a person can not critically percept ideas and settings.

There are known methods of mental self-regulation (MSR), which permit for subject to control his functional state. They are: methods of Dick, 2002; Kuznetsov, 1993; Leonov, 1989; Leonov, Kuznetsov, 1987, 1991; I.L. Bykhovska, 1998; M.Ya. Vilenskiy, 2001; Yu.M. Nikolayev, 2001; Ye.V. Titarenko, 2005; Ye.A. Zlokazova, 2007; N.M. Lebedieva, 2011 et al.

Influence of AT on sportsmen was researched by V.P. Nekrasov, N.A. Khudakov (1985), A.V. Alekseyev (1978), Ye.P. Ilyin (1980, 1983), L.D. Gissen (1973), A.Ts. Puni (1975), A.V. Aliksieyev (1985), I.P. Volkov (1994), G.B. Gorska (1995), I.A. Voronov (2005), V.A. Matvieyev (2011) et al.

New technologies and methodic of psycho-regulation in sports have also been actively developing (P.V. Budzen, 2001); V.N. Balandin, N.P. Bure, 1994; O.V. Kolodiy, 2001; A.V. Rodionov, 1994; V.N. Smolentseva, 2004; A.A. Dolin, A.A. Maslov, 1990; P.L. Ponomariov, 2010 et al.)

Achmeology – the science about highest achievements in sports, requires searching and development of new, effective methods of mental training in sports [2].

As far as every separate psychological method renders specific influence for solution of certain tasks, has its own advantages and disadvantages in respect to other methods of influence on sportsman, there appeared a need in development of complex combined psychological model of sportsman's training on the base of hetero-suggestion (HS), which includes some known techniques and their modifications.

The work has been fulfilled as per plan of scientific & research works of School of highest sportsmanship.

Purpose, tasks of the work, material and methods

The purpose of the research:

1. Creation of complex, combined, personality-oriented psychological model of sportsmen's preparation for competitions in rowing on the base of hetero-suggestion, which includes psychological methods and their modifications as well as mental trainings from Raja Yoga.

2. Demonstrate advantage of HS in respect to AHIMT.

The tasks:

1. Determine suggestibility of sportsmen.
2. Teach sportsmen to IMT, AT and AGIMT.

The methods of the research: analysis and generalization of scientific-methodic and special literature, devoted to problem of our research, pedagogic observation, methods of psychological influence, evaluation of results.

Organization and methodic of the research. The research was carried out on training base of School of highest sportsmanship (Nikolayev) with 20 sportsmen- rowers of 1st sport grade, of 15-16 years old age. The tested sportsmen were divided in two groups: experimental – 10 persons and control – 10 persons. Experimental group consisted of sportsmen with high suggestibility. Different variants of combinations, composed of different psychological methodic, were developed by specialist-hypnologist with participation of team coach, depending on possible specific situation for every individual sportsman. In case of any common problems, psychological sessions were conducted with group. Sessions were conducted 2-3 times a week and took 1-2 hours each, in sport season, by permission of sportsmen's parents.

Sportsmen of experimental group passed HS sessions in doctor's room and at trainings. Hypnologist immersed sportsmen in 3rd stage of hypnotic sleep and corrected technical skillfulness, activated optimal combat state (OCS), simulated and programmed future competitions, having previously discussed the text of suggestions with coach. Correction of psycho-emotional and psycho-somatic state of sportsmen was carried out by doctor, in case if sportsmen had appropriate indications, with the help of known psychological methods and their modifications as well as mental exercises from Yoga system [3, 4, 6, 10-15]. Correction of technical skillfulness was conducted with the help of modified method of motion skills' training [5].

Sportsmen from control group were trained to AHIMT method for 3 months. After finishing they carried out independent corrections of their technical skillfulness, activation of OCS, simulation of future competitions.

Analysis of individual rowing was conducted by coach with the help of video recording of training and competition processes.

Example 1. In rowing, sportsman M. had straining of shoulder girdle, "back collapse"; he did not speed up oar before hold, fulfilled weak finishing of rowing, did not remove body weight from bench, had "lumbago" at the moment of jump leg's movement in hold. These mistakes were corrected during whole month at trainings but with no results.

Sportsman M. Passed of hypnotic session of 3rd stage in hypnologist's room; during sessions he imagined himself at training, then he was suggested: take seat in boat, raise waist, relax over thighs, drop and relax shoulders, speed up oars, rise from bench, rise upper end of oar to himself, relax sharply legs. Technical mistakes were removed within two sessions.

Example 2. Sportsman K. being in boat is immersed in 3rd stage of hypnotic dream; after this he was suggested that he passed 8 kilometers' distance with open eyes and hearing, besides words of hypnologist, all remarks of coach, accompanying sportsman in cutter; attention of sportsman was concentrated on his work. Coach periodically gave remarks on rowing.

Example 3. Sportsmen S., K., D., Sh., I. were immersed in hypnotic state and trained in rowing pool, where under guidance of coach, who was connected to hypnotic dialogue, corrected technique of rowing.

During HS session hypnologist suggested sportsmen rowing techniques of other sportsman:

Example 4. Sportsmen S., K., B., Sh., I. were suggested in hypnotic state that they are sitting on bench of rowing pool and watching sportsman's K. rowing, remembering this picture and reproducing it in hypnotic dream.

Example 5. Sportsmen S., K., B., Sh., I. were suggested that they remember in rowing pool rowing techniques of K., and then reproduce it continuing their being in hypnotic dream.

During HS session hypnologist carried out suggestions for activation of OCS:

Example 6. Sportsmen K. And D. in hypnologist's room were immersed in hypnotic dream of 3rd stage and suggested that they were on competitions in Kherson, then they remember one of the best their performances and with it they started to feel similar psycho-emotional and physical states before start. Sportsmen passed all distance and finished the first.

Hypnologist's suggestions in HS sessions, oriented on simulation and programming of future competitions:

Example 7. Sportsmen K., D., B. were suggested for increasing of physical strength in future competition with manifestation of OCS, perfect mood was programmed, good night sleep, self assertion, commitment, wish to achieve victory by any means. In hypnotic state sportsmen passed distance at competitions in Dnepropetrovsk and came first to finish. Sportsmen knew locality and conditions of competition, that is why suggested dream with their participation in that competition reflected real situation quite precisely.

Hypnologist's suggestions in HS sessions, oriented on execution of exercises in dream state:

Example 8. Sportsmen F. and K. were suggested to, remaining in hypnotic state, open eyes, go outdoors and slowly run to rowing base and back. After running, sportsmen were released from hypnotic state in medical room.

Example 9. Sportsman D. was immersed in hypnotic dream that he was ordered to fulfill training task in water, being in hypnotic state with open eyes.

Hypnologist's post-hypnotic suggestions in HS sessions, oriented on certain behavior after awaking:

Example 10. Sportsmen B., D., K., F were suggested that in the night before competition they would have good sound sleep, before start they would feel enormous surge of strength, light excitement, they would be sure in victory, would start racing confidently, would feel excellently oars and water. All movements would be synchronous, they

would control work of legs, arms, back, they would remember coach's instructions, they would demonstrate all their abilities and win competitions.

Hypnologist's suggestions in HS sessions, oriented on ability to meditate on color:

Example 11. Sportsmen were suggested that they see turn by turn all colors of rainbow (several seconds for every color). Then sportsmen were released from hypnotic state.

Hypnologist's application of modification of working with sub-modalities :

Example 12. Sportsmen were immersed in hypnotic state, in which they were suggested that they were looking at their desired by them image, image, which they would like to be; then they immersed in this image and looked at the place, in which they were at the beginning, feeling their improved psycho-emotional and psycho-somatic state.

Evaluation of research's results was carried out by coach at trainings and by results of competitions.

Results of the researches

Sportsmen of experimental group, training as per developed by us complex combined, personality-oriented psychological model, intended for improvement of sportsmanship, at competitions overlapped indicators of control group, in which methods of AHIMT were used. Moreover, mastering of AHIMT took three months.

Concerning sportsmen of experimental group we registered: 1. High quality of OCS, simulation and programming of training and competition processes. 2. High level of stability of acquired positive psycho-emotional state against the background of increased motivational and post-hypnotic suggestion. 3. Correction of technical mistakes took place within 1-3 sessions.

Advantage of developed by us psychological program in respect to AHITM can be explained by the fact that AHOTM is carried out by sportsmen independently with imaginable fulfillment of movements in lying or sitting positions. During imagination of own body's movements flows of bio-impulses from motion sector of cortex are minimal and accordingly contraction processes of skeleton muscles are also minimal, in comparison with actual contractions of muscles, which take place under training loads. It is known that movements' technique worsens with increasing of load and their speed (V.L. Marischuk, 1964; V.A. Vodorezov, B.V. Lomov, 1968; V.L. Marischuk, N.V. Sysoyev, 1964; B.A. Viatkin, 1981 et al.). AHIMT is carried out in relaxed state with mental imagination of movements. The offered model of HS application in real training mode eliminates such disadvantages, permitting to correct techniques, without interrupting of training, at any segment of distance with the help of rapport with hypnologist and coach, who accompany sportsman on cutter.

Instruction of AHIMT shall be started from mastering of autogenic system. To master AT be Shultz's method 3 months are required. Mastering of AT by A. Alieksieyev takes 3-4 weeks of everyday trainings (45 minutes each lesson) and these are substantial disadvantages of these methodic. Mastering of AHIMT requires that sportsman should regularly train it and is admissible only for sportsmen with high level of motivation and consciousness, while HS does not require from sportsman any preliminary preparation.

Maximal result of suggestion can be obtained in 3rd stage of hypnotic dream. With AHIMT this stage can not be reached. In 3rd stage self-consciousness switches off and self-suggestions become impossible.

There is no direct dependence of hypnoability on suggestibility, but in most cases strength of suggestion depends on hypnoability. With low hypnoability or weak suggestibility mastering of AHIMT becomes difficult. AHIMT depends on genetic properties of human central nervous system and, before recommending it, it is necessary to test hypnoability and suggestibility of an individual. Application of post hypnotic suggestions is also justified, because they are fulfilled by sportsman more exactly than with AHIMT. Explanation of this is in different strength of influence on sportsman. In AHIMT result depends on sportsman's imagination; in hypnosis – on hetero-suggestions. As it was marked by scientists P.F. Lesgaft, A.Ts. Tsuni, A.A. Bielkin and other, the brighter and fuller is sportsman's image of movement the easier and more exactly it is fulfilled in real sport situation. HS does not depend on individual ability of a sportsman that is why necessary images of movements are suggested by hypnologist, as per his program. In self-hypnosis it is possible to reach only 1st or 2nd stages of hypnotic dream. With HS hypnotic dream can reach 3rd stage.

In self-hypnotic state (AHIMT) result of movements' correction depends on sportsman's theoretical knowledge of necessary technique, which can differ from technique, offered by coach. It happens more often with juniors and then AHIMT loses any sense. The admitted mistakes of suggestions leave traces in CNS, which will overlap motion reflexes with following correct suggesting and disfiguring the previous ones, because suggestions are usually rather stable. Besides, stimulating sport trainings motivation mechanisms of juniors are not completely formed, that is why one can not expect that they should practice purposeful regular AHIMT trainings [11]. In hypnotic dream sportsman does not criticize suggestions of coach, he completely obeys hetero-commands. With AHIMT logical thinking is working constantly and hinders from deep trans, lowering effect of suggestion.

Imagination of rainbow colors in our psychological model was strengthened with the help of hypnotic influence. Imagined red color increases workability, blue color inhibits nervous system, giving rest, yellow color raise mood. Positive influence of colors on organism was used by Yogis, meditating on fire (red color), sky (blue color) and other [3].

Principles of meditation were used by us in compliance with indications and were carried out against the background of hypnotic influence, because sportsmen were not skillful in meditation techniques.

R. Bandler's [6] method of work with sub modalities was used in modifications, accepted in sport practice and also against the background of hypnosis.

Application of different psycho therapeutic techniques, amplified by hypnotic influence is required because for maintaining of sport form at proper level is possible only if sportsman has good mood and sound self feeling.

Application of any of psychological methodic for receiving of expected effect yields significantly to complex, combined influence in different situations, possible with preparation of sportsman for competitions. Combination of known methodic and their modifications ensure the best results in specific situations.

Effectiveness of developed by us psychological model is proved also by the fact that with minimal quantity of sessions maximal result is achieved.

Conclusions:

1. The carried out observations over tested sportsmen showed that application of developed by us complex, combined, personality-oriented psychological model of sportsmen's preparation for competitions in rowing on the base of hetero-suggestion, including psychological methods and their modifications as well as psychological trainings from Raja Yoga system, made a good account of itself in sport practice. Advantage of HS over AHIMT has been shown.

2. Sportsmen of control group did not show expected effect. 3 months was spent for mastering of AHIMT; after this, sportsmen could immerse only in light stage of hypnosis.

The offered model of rowers' psychological training can be recommended for application in different kinds of sports.

Further researches are planned in direction of studying of buddhistic psycho-trainings' influence on sportsmen.

References:

1. Alekseev A.V. *Sebia preodolet'* [Themselves to overcome], Moscow, Physical Culture and Sport, 1985, 192 p.
2. Volkov I.P. *Ocherki sportivnoj akmeologii* [Essays of sports acmeology], Sankt Petersburg, BPA, 1998, 127 p.
3. Rudoj V.I., Ostrovskaja E.P. *Klassicheskaja joga. «Joga-sutry» Patandzhali i «V'iasa-bkhash'ia»* [Classical Yoga. "Yoga Sutras" of Patanjali and "Vyasa Bhashya"], Moscow, Science, 1992, 250 p.
4. Makdonal'd V. *Rukovodstvo po submodal'nostiam* [Guide submodality], Voronezh, NGO "MODEK", 1994, 89 p.
5. Omelyanenko V.I. *Teoriia i praktika fizicheskoi kul'tury* [Theory and practice of physical culture], 1990, vol. 11, pp. 47-48.
6. Ponomarev P.L. *Gipnoz v sporte vysshikh dostizhenij* [Hypnosis in elite sport], Moscow, Soviet sport, 2010, 296 p.
7. Sekun V.I. *Issledovanie treniruiushchego dejstviia predstavleniia dvizhenij u gimnastov* [Study coaching submission actions movements gymnasts], Cand. Diss., Leningrad, 1968, 22 p.
8. Shul'c I.G. *Autogennaia trenirovka* [Autotraining], Moscow, Physical Culture and Sport, 1985, 78 p.
9. Kirk D. Physical Culture, Physical Education and Relational Analysis. *Sport Education and Society*, 1999, vol.4(1), pp. 63-73.
10. Kohen D.P., Zajac R. Self-Hypnosis Training for Headaches in Children and Adolescents. *The Journal of Pediatrics*. 2007, vol.150(6), pp. 635–639. doi:10.1016/j.jpeds.2007.02.014.
11. Newmark T.S., Bogacki D.F. The Use of Relaxation, Hypnosis, and Imagery in Sport Psychiatry. *Clinics in Sports Medicine*. 2005, vol.24(4), pp. 973–977. doi:10.1016/j.csm.2005.06.003.
12. Omelyanenko V.I. The use of suggestion in sports practice. // *Pedagogics, psychology, medical-biological problems of physical training and sports*, 2013, vol.9, pp. 55-58. doi:10.6084/m9.figshare.751554
13. Rajeev Verma. *Faith philosophy of Hinduism- Delhi*, India, Gyan Publishing House, 2009. - 335 p.
14. Steel P. Integrating theories of motivation / P. Steel C. I. Konig. *Academy of Management Review*, 2007.- C. 889-913.
15. Stein J.M. The effect of adrenaline and of alpha- and beta-adrenergic blocking agents on ATP concentration and on incorporation of $^{32}\text{P}_i$ into ATP in rat fat cells. *Biochem Pharmacol.* 1975, vol.24(18), pp. 1659–1662.

Information about the author:

Omelyanenko V.I.: hrebenik@ukr.net; Higher Sportsmanship School; Ingul descent, 4, Mykolaiv, 54001, Ukraine.

Cite this article as: Omelyanenko V.I. Auto- and heterosuggestion in boat rowing. *Pedagogics, psychology, medical-biological problems of physical training and sports*, 2013, vol.12, pp. 53-57. doi:10.6084/m9.figshare.880618

The electronic version of this article is the complete one and can be found online at: <http://www.sportpedagogy.org.ua/html/ahive-e.html>

This is an Open Access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited (<http://creativecommons.org/licenses/by/3.0/deed.en>).

Received: 06.09.2013
Published: 30.12.2013