International Journal of Computational Research and Development (IJCRD)
Impact Factor: 5.015, ISSN (Online): 2456 - 3137
(www.dvpublication.com) Volume 2, Issue 2, 2017

INFLUENCE OF PSYCHOLOGICAL STRATEGIES ON SWIMMING PERFORMANCE AMONG UNIVERSITY SWIMMERS

S. Sivamani* & Dr. D. Sultana**

* Ph.D Research Scholar, Department of Physical Education, Pondicherry University, Pondicherry

** Professor & Director (Incharge), Department of Physical Education, Pondicherry University, Pondicherry

Cite This Article: S. Sivamani & Dr. D. Sultana, "Influence of Psychological Strategies on Swimming Performance among University Swimmers",International Journal of Computational Research and Development, Volume 2, Issue 2, Page Number 140-143, 2017.

Abstract:

The purpose of the study is to find out the influence of psychological strategies on swimming performance among university swimmers. The present study has been involved 45 swimmers from AMET University, Chennai. Length of the present study examined the influence of a 3 week's psychological strategies training programme among University swimmers. Chosen Swimmers achieved and represented in the National level Inter Maritime swimming competition their age group in between 18 to 22 years, the assigned training programme duration has 60 minutes per session for three alternate days a week. The psychological strategies training programme consisted of Attention focus, Mental Imagery, and Self-talk. All the selected subjects were divided into three group Experimental Group I (psychological strategies training with swimming drills) Experimental Group II (without psychological strategies with swimming drills) and Control Group III then each group consist of 15 subjects are considered as autonomous variables. By using 50 meters freestyle swimming test the scores were obtained from the subjects and the obtained data were analyzed by using ANCOVA and Scheffe's post hoc test. The present study result showed that there was a significant improvement inExperimental group I apart Experimental group II compared and Control Group the slight improvement has anExperimental group I compared to Experimental group II in swimming performance. It was concluded that the duration of the training programme and the effect of swimming drills caused better significant improvement in swimming performance among University Swimmers. This helped the swimmers to be very active to achieve their performance in competitions.

Key Words: Psychological Strategies (Mental Imagery, Attention Focus and Self-Talk) & Swimming Performance.

Introduction:

"Psychological strategies focus on mental processes and are used to either calm the athletesbrain activity or to stimulate them. The aim is to reduce anxiety in order to allow the brain to relax but can be used to focus the athlete's thoughts on the upcoming event.Psychological strategies are used to help decrease heart and respiration rates while directing the athletes focus either away from or towards competition or training, depending not the context."

"An anxious athlete may use relaxation techniques before competition in order to reduce nervousness and allow them to focus on the task. Although some athletes will choose to focus on something other than competition in order to help relieve their anxiety.After thecompetition, particularly during a transition or off-season phase, athletes will use relaxation and other psychological strategies in order to help rejuvenate their whole body, including their mental function.Other psychological strategies used include debriefing, rest days and sleep. Psychological recovery strategies are important, as training and performance place stress on an athlete's mental capacity as well as their physical ones. Psychological strategies improve performance by not allowing the athlete to be held back by past performances. They are particularly important after losing a major competitionsuch as a grand final or the State of Origin." Many researches examine numerous reviews about swimming training programme, but only few research have been taken with swimming training and includes psychological aspects as a part of a training programme. However with the exception a study undertaken by Phillip Post et.al. (2011) shows the "Effects of imagery training on swimming performance an applied investigation". After 15 weeks of thetrainingperiod, the swimmers were tested, based on the test the results of the study exposed that 3 out of 4 participants significantly improved the swimming performance using imagery training.

Micheal Sheard & Jim Golby (2011) investigated a study on "Effect of a psychological skills training program on swimming performance and positive psychological development" for national level swimmers. The findings reported that a significant improvement in swimming skills and also an overall significant improvement in participants in positive psychological. "An athlete's mental preparation for thecompetition, including visualization, mental rehearsal, imagery and mental practice. These terms all refer to creating or recreating an experience in the mind. The process involves recalling from memory pieces of information stored from experience and shaping these pieces into meaningful images. These experiences are essentially a product of athlete's memory, experienced internally by recalling and reconstructing previous events. Imagery is actually a

form of simulation." "The mental imagery is important to remember that imagery does totake the place of physical practice or swimming practice. In fact, a combination of physical and mental practice is not better than swimming practice along within the same time frame if the mental component takes time away from swimming practice. In essence, imagery needs to be added to swimmers normal practice, but it should not replace it. However mental practice does improve performance more than no practice at all. Therefore, imagery should be viewed as a way of training the mind in conjunction with physically training the body, not as a replacement for physically practice. In essence, mental imagery might be thought of as a vitamin supplement to Swimming practice, one that could give aswimmer an edge in improving swimming performance."

To improve the athlete's ability to use imagery, it is often effective to have them experience the real sensory input and then immediately re-create it. In some cases, such as swimming, this might actually happen in the pool, as the automatized strokes are done. After a standard warm-up, the swimmer 50 meters of freestyle at a controllable speed that allows for maximal technique without under fatigue. The next 50 meters is swum for four strokes with eyes open and a broad focus of attention, four strokes with eyes closed, practicing imagery of the senses used for the four previous strokes. Once out of the pool, the swimmer repeats the imagery of the full 50 meters free style swim several times a day. Swimming drill will enhance the swimmer's imagery ability in a number of areas. "It will assist the swimmer in acquiring an internal perspective of mental imagery in cooperation with the external perspective, encourage multisensory imagery, improve controllability by allowing the swimmer to change images and senses during an actual swim, increase vividness by recreating sensory experience currently in short-term memory, assist in transfer of images from short- term memory for storage in long-term memory, assist in transfer of images from short-term memory for storage in long-term memory by immediate rehearsal and programming for future recall and enhance the ability to create images instead of just recreating images."

Statement of the Problem:

The purpose of the study was to find out the Influence of psychological strategies on swimming performance among University Swimmers.

Hypothesis:

It was hypothesized that there would be a significant difference in Swimming performance due to Psychological strategies with swimming drills among University swimmers.

Review of Literature:

Gail Kendall e al., (1990) conducted a Study on "The Effects of an Imagery Rehearsal, Relaxation, and Self-Talk Package on Basketball Game Performance." "This study investigated the effects of an imagery rehearsal, relaxation, and self-talk package on the performance of a specific defensive basketball skill during competition. Subjects were four female intercollegiate basketball players. A single-subject multiple-baseline-across-individuals design was employed to evaluate the intervention package. The intervention was clearly effective in enhancing a basketball skill during games, and social validity measures were very positive. The need for further research in this area is discussed."

Antonis Hatzigeorgiadis, Yannis Theodorakis & Nikos Zourbanos (2010) Conducted a Study on "Self-Talk in the Swimming Pool: The Effects of Self-Talk on Thought Content and Performance on Water-Polo Tasks." "The present study examined the effect of instructional and motivational self-talk on the occurrence of interfering thoughts and performance on two water-polo tasks with similar characteristics performed in the same environment. Two experiments were conducted in the swimming pool, one involving a precision task (throwing a ball at target) and one involving a power task (throwing a ball for distance). In the first experiment (precision task), both self-talk groups improved their performance in comparison to the baseline measure, with participants using instructional self-talk improving more. In the second experiment (power task), only the motivational self-talk group improved its performance significantly. In both experiments, the occurrence of interfering thoughts declined for both groups. The results of the study provide further support for the effectiveness of self-talk and give preliminary evidence regarding likely mechanisms through which self-talk influence performance, that is through indications that self-talk reduces thoughts not related to task execution, thus enhancing concentration to the task."

Methodology:

Forty-five University swimmers were selected at random from AMET University, Chennai. Their age ranges from 18 to 21 years. They were divided into three equal group's consists of 15 in agroup, anamely experimental group I, experimental group II and control group. Experimental Group I exposed to Psychological strategies with swimming drills (Package-I), Experimental group II exposed to swimming drillswithout Psychological strategies (package –II), and thecontrol group was restricted from participating in the training Programme. The Training programme was allotted for three alternate days per week (Monday, Wednesday, Friday for theexperimental group I and Tuesday, Thursday and Saturday for experimental group II in the evening sessions, between 4.30 pm to 5.30 pm. To assess the effect of 3weeks training programme. Swimming performance is chosen as dependent variables for this study.

Criterion Measure:

Swimming performance – 50meter Freestyle swim. In this procedure, all the subjects are asked to stand infront of the respective lanes. This test started by the helper by the side of the subjects. When the helper signal or blow the whistle the subjects start toswim on freestyleupto 50 mts distance. The foul start may be considered for another start.From the start of swimming the helper start the stopwatch up-to finishing point (50mts). The scores were recorded in seconds.

Swimming Drills:

- ✓ 50m kick and 25m front underwater kick (in between sets 30 sec rest)
- ✓ 50m Position kick and 50m streamlined kick (in between sets 30 sec rest)
- ✓ 50m Biondi drill plus one full stroke drill
- ✓ 50m Side lateral kick and breathing every 12 kicks
- ✓ 50m Breathe, Kick, Slide
- ✓ 50m Guided one-arm backstroke
- ✓ 50m Hip, Shoulder and Trunk Rotation
- ✓ 50m Slide-stroke-slide breaststroke drill
- ✓ 50m Controlled breaststroke
- ✓ 50m High Elbow recovery and rotation
- ✓ 50m Dolphin drill with breathing
- ✓ 50m Fists and Hand paddles
- ✓ 50m touch the kickboard drill
- ✓ 50m Freestyle-to-backstroke turn

Psychological Strategies:

- ✓ Mental Imagery
- ✓ Attention Focus
- ✓ Self Talk

Analysis:

The statistical analysis comparing the initial and final means of Swimming Performance among University Swimmers is presented in Table 1

Table 1: Analysis of Covariance on Swimming Performance (Score in Seconds, Number of Counts)

Variables	Test	PSWSD (Package-I)	PSWOSD (Package-II)	Control Group	SV	SS	df	MS	F	TF
Swimming Performance	Pre Test	36.61	38.67	40.10	B	92.36	2	45.18	1.15	3.22
					W	454.58	42	10.82		
	Post Test	33.01	36.45	38.90	B	262.99	2	131.50	15.63*	3.22
					W	388.44	42	9.25		
	Adjusted Means	34.51	36.28	37.57	B	58.53	2	29.27	50.60*	3.23
					W	87.05	41	2.12		
	Mean Gain	3.60	2.22	1.20						

* Significant at 0.05 level

Table 2: Ordered Scheffe's Test

Variables	PSWSD (Package-I)	PSWOSD (Package-II)	Control Group	Mean Difference	F Ratio
Swimming Performance	34.51	36.28	-	1.77	1.35
	34.51	-	37.57	1.05	1.35*
	-	36.28	37.57	1.29	1.35*

* Significant at 0.05 level

Findings of the Study:

The results presented in Table 2 proved that due to psychological strategies with swimming drills (package-I) and swimming drillswithout psychology strategies (package-II) swimming performance among University swimmers were significantly improved over the control group. A significant improvement is observed on psychological strategies with swimming drills better than psychological strategies without swimming drills in improving swimming performance of University Swimmers.

Conclusion:

It was concluded that the duration of the training programme and the effect of swimming drills caused better significant improvement in swimmingperformance among University Swimmers. This helped the swimmers tobe very active to achieve their performance in competitions.

References:

1. Robert S. Weinberg & Daniel Gould, (1999). "Foundation of sport and exercise psychology", Human Kinetics, Library of Congress Cataloging in Publication Data, 2nd Edition, pg.266 & 269. ISBN: 0-88011-824-5.

2. Tony Morris Jeff Summers (2004), "Sports Psychology: Theory, Applications and Issues", 2nd edition, John Wiley & Sons Australia Ltd, Pg.368-369.
3. Tony Morris Jeff Summers (2004), "Sports Psychology: Theory, Applications and Issues", 2nd edition, John Wiley & Sons Australia Ltd, Pg.104
4. Timothy L. Miller (2016), "Endurance Sports Medicine", A Clinical Guide, Springer International Publishing Switzerland, Pg.286-287, ISBN: 978-3-319-32980-2.
5. Bill Sweetenham and John Atkinson (1950), "Championship Swim Training", Library of Congress cataloging-in-publication data, Human Kinetics, pg.103 – 109, ISBN: 0-7360-4543-0.
6. Phillip G Post, Sean Muncie and Duncan Simpson (2012), "The Effects of Imagery Training on Swimming Performance: An Applied Investigation" Journal of applied sports psychology, 24:3, 323-337.
7. Gail Kendall, Dennis Hrycaiko, Garry L. Martin Tom Kendall (1990). The Effects of an Imagery Rehearsal, Relaxation, and Self-Talk Package on Basketball Game Performance, Journal of Sport and Exercise Psychology, An Official Publication of the North American Society for the Psychology of Sport and Physical Activity, Volume: 12 Issue: 2 Pages: 157-166.
8. Antonis Hatzigeorgiadis,Yannis Theodorakis & Nikos Zourbanos (2010). Self-Talk in the Swimming Pool: The Effects of Self-Talk on Thought Content and Performance on Water-Polo Tasks, Journal of Applied Sports Psychology, Volume 16, 2004 - Issue 2, Pages 138-150.
9. Michael Sheard and Jim Golby (2011).Effect of a psychological skills training program on swimming performance and positive psychological development. International journal of sport and exercise psychology, 4(2), 149-169.