

## 10 - COMPARATIVE STUDY BETWEEN THE PRACTITIONERS OF THE SCUBA DIVING AND SWIMMING, IN THE LEVELS OF ANXIETY AND SELF CONFIDENCE

FONTOURA, FREDERICO  
 MAURO MORAES MACEDO  
 UNIVERSITY VEIGA DE ALMEIDA, CABO FRIO, Rio de Janeiro, BRAZIL  
 FREDERICO@TRIDENTE.TUR.BR

### Introduction

The recreational scuba diving (scuba is self contained underwater breathing apparatus); it is an aquatic, individual sport and practiced in group, that has its development in its bigger part outdoor commanded for the R.S.T.C. - Recreational Scuba Training operating Council in 286 countries, contemplates the sectors of eco-tourism and the scientific research. Swimming as well as the Diving is an individual and aquatic sport practiced in group however that it has its development in the biggest indoor part.

The recreational scuba diving is practiced from twelve years of age until the individual reaches one of the described states in the cited criteria of exclusion in this article. The activity of the diving is of great potential for the emotional re-education of its practitioners developing abilities to deal with the emotional memory, as demonstrated in recent article published in FIEP 2005 with the heading - Didactics Principles That Optimize The Learning And Use The Diving In The Emotional Re-Education.

Being an activity where a competition of the individual exists I obtain exactly, when surpassing its personal marks of performance, is a sport that invariable tends to an intense development of described auto-perception as for in the article above cited. Swimming as well as the diving is an individual aquatic sport and worked in group that has its development in the biggest "indoor" part, being predecessor of the diving in the relation of the man with the water, swimming was always present in all times of the history of the societies and is spread out in the entire world.

### Objective

The Objective was to evaluate in amateur sportsman of these two activities in the city of Cabo Frio, Rio de Janeiro, Brazil, the presence of cognitive anxiety, be somatic estate anxiety and selfconfidence. Moreover to compare between the two activities with characteristics very close which the relation to these psychological elements in both. Justification At the current social moment the anxiety has been detected as response for constant discomforts. Through this research one expects to conciliate information that justify the practical one of sports as an option of development of the selfconfidence and reduction of the anxiety in the practitioners.

### Revision of Literature

"the Inventário de Ansiedade Estado Competitiva - 2 (IAEC - 2) were developed as instrument of sport, specific of been anxiety and as a revision of the old Inventário de Ansiedade Competitiva (Martens, Vealey and Burton, 1990). The IAEC - 2 measure the anxiety pre competitive, that is the anxious as the athlete feels in the moment before competition"(Morrow, 2002).

### Methodology

Was applied the questionnaire of the laec-2 (in annex) for the sport activity, in amateur sportsman of the sports: swimming and diving. The questionnaire was analyzed in accordance with the norms proposals by Morrow (2002). The result of the test that varies of 9 the 36 and was divided in three largenesses, of 9 the 17 low condition, 18 the 26 average the 36 condition and 27 high condition. Amounts had been searched uniforms of each activity.

### Criteria of Inclusion

Had been enclosed in this research only sportsman fans above of 18 years of age, that practiced the activities searched in the city of Cold Handle of the State of Rio De Janeiro without gender distinction.

### Criteria of Exclusion

Had not been evaluated in swimming the ones that had not obtained proficiency in the conventional medical examination, for the scuba diving had not been accepted the ones that had not passed for experience of the course of scuba diving. They had not been accepted individuals out of the cited specifications nor that they carried some type of illness or restriction in the health described in the form of medical evaluation of RSTC (Recreational Scuba Training Council) and certified medical evaluation after.

#### 1 - Otolaryngological

Relative Contraindications: significant cold injury to pinna, TM perforation, tympanoplasty, mastoidectomy, mid-face fracture, head and/ or neck therapeutic radiation, temporomandibular joint dysfunction, recurrent otitis externa, significant obstruction of the external auditory canal, eustachian tube dysfunction, recurrent otitis media or sinusitis, significant conductive or sensorineural hearing impairment, facial nerve paralysis not associated with barotrauma, full prosthodontic devices, unhealed oral surgery sites

Absolute Contraindications: stapedectomy, ossicular chain surgery, inner ear surgery, round window rupture, vestibular decompression sickness, monomeric TM, open TM perforation, tube myringotomy, facial nerve paralysis secondary to barotrauma, inner ear disease other than presbycusis, uncorrected upper airway obstruction, laryngectomy or status post partial laryngectomy, tracheostomy, uncorrected laryngocele.

#### 2 - Cardiovascular

The suggested minimum criteria for stress testing is 13 METS

Relative Contraindications: CABG or PCTA for CAD, myocardial infarction, dysrhythmia requiring medication for suppression, hypertension, valvular regurgitation, asymptomatic mitral valve prolapse, Pacemakers-Note: pacemakers must be depth certified by the manufacturer to at least 130 feet (40meters) of sea water.

Absolute Contraindications: asymmetric septal hypertrophy and valvular stenosis, congestive heart failure  
3 - Pulmonary

Asthma (reactive airway disease), COPD cystic or cavitating lung diseases all may lead to air trapping.

Relative Contraindications: prior asthma or reactive airway disease (RAD)\*, exercise/cold induced bronchospasm (EIB), solid, cystic or cavitating lesion, pneumothorax secondary to: thoracic surgery\*, trauma or pleural penetration\*, previous over inflation injury\*, restrictive disease\*\*

(\*Air trapping must be excluded) (\*\*Exercise testing necessary)

Absolute Contraindications: history of spontaneous pneumothorax, active RAD (asthma), EIB, COPD or history of the same with abnormal PFS or positive challenge, restrictive diseases with exercise impairment.

4 - Gastrointestinal

Relative Contraindications: peptic ulcer disease, inflammatory bowel disease, malabsorption states, functional bowel disorders, post gastrectomy dumping syndrome, paraesophageal or hiatal hernia.

Absolute Contraindications: high grade gastric outlet obstruction, chronic or recurrent small bowel obstruction, enterocutaneous fistulae that do not drain freely, esophageal diverticula, severe gastroesophageal reflux, achalasia, unrepaired hernias of the abdominal wall potentially containing bowel.

5 - Neurological

Relative Contraindications: head injury with sequelae other than seizure, spinal cord or brain injury without residual neurologic deficit, cerebral gas

embolism without residual - pulmonary air trapping has been excluded, migraine headaches whose symptoms or severity impair motor or cognitive function,

hemiated nucleus pulposus, peripheral neuropathy, trigeminal neuralgia, cerebral palsy in the absence of seizure activity.

Absolute Contraindications: seizures other than childhood febrile seizures, TIA or CVA, spinal cord injury - disease or surgery with residual sequelae, type

II - serious and/or central nervous system - decompression sickness with permanent neurologic deficit, intracranial tumor or aneurysm

6 - Metabolic and endocrinological

Relative Contraindications: hormonal excess or deficiency, obesity, renal insufficiency

Absolute Contraindications: diabetics on insulin therapy or oral anti-hypoglycemia medication

7 - Pregnancy

Absolute Contraindications: Venous gas emboli formed during decompression may result in fetal malformations.

Diving is absolutely contraindicated during any state of pregnancy.

8 - Hematological

Relative Contraindications: sickle cell trait, acute anemia

Absolute Contraindications: sickle cell disease, polycythemia, leukemia

9 - Orthopedic

Relative Contraindications: chronic back pain, amputation, scoliosis- assess impact on pulmonary function, aseptic osteonecrosis

10 - Behavioral health

Relative Contraindications: drugs or alcohol abuse, previous psychotic episodes, developmental delay

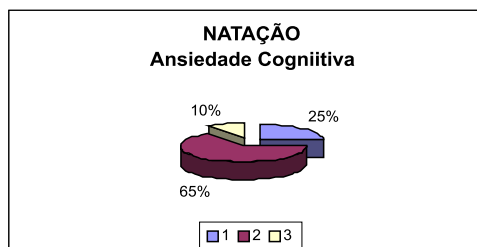
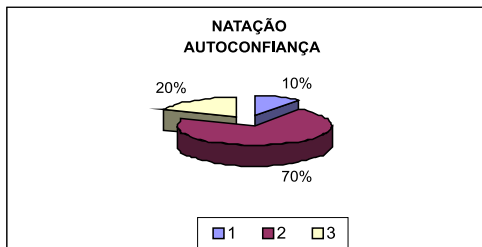
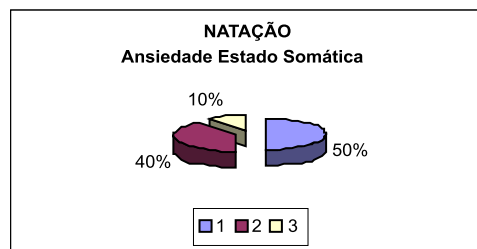
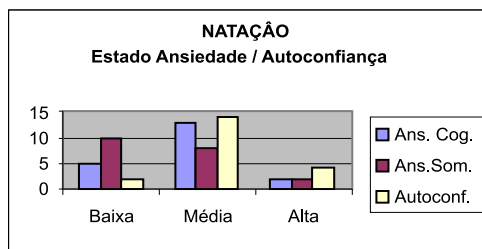
Absolute Contraindications: history of panic disorder, inappropriate motivation for scuba training, claustrophobia and agoraphobia, active psychosis or while receiving psychotropic medications, drugs or alcohol abuse.

**Resulted**

The joined results they had been made were put in graphs to facilitate to the best perception of the relations and in tables summarized for the averages found moda, medium and variance in function of the disponibilization of space.

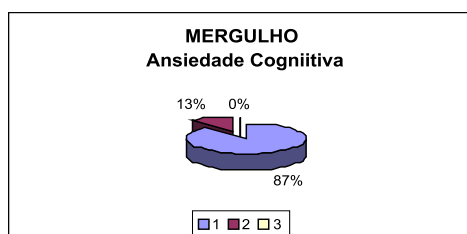
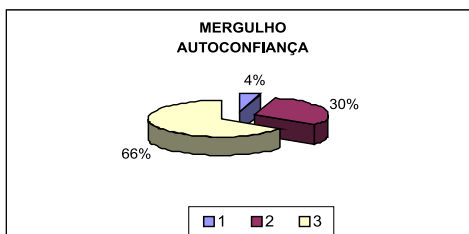
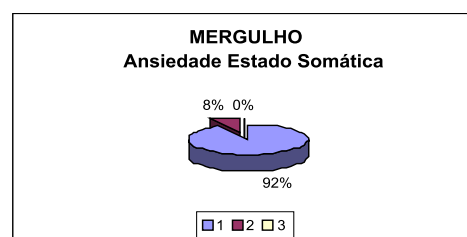
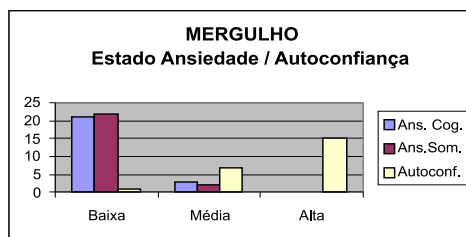
NATAÇÃO	Ansiedade Cognitiva	Ansiedade Estado Somática	Autoconfiança
Média	20,2	18,6	22,35
Mediana	22	18	22
Moda	21	17	22
Variância	30,69473684	18,56842105	22,34473684

SWIMMING	LOW	MEDIUM	HIGH
Ansiedade Cognitiva	5	13	2
Ansiedade Estado Somática	10	8	2
Autoconfiança	2	14	4



	Ansiedade Cognitiva	Ansiedade Estado Somática	Autoconfiança
Média	13,375	12,375	30,66666667
Mediana	11	11,5	34,5
Moda	11	10	36
Variância	18,33152174	10,50543478	32,57971014

SCUBA DIVING	LOW	MEDIUM	HIGH
Ansiedade Cognitiva	21	3	0
Ansiedade Estado Somática	22	2	0
Autoconfiança	1	7	15



**Conclusion**

Observing the displayed data we conclude that the independent diving develops more the selfconfidence, while it significantly lowers the levels of cognitive anxiety and somatic, estate anxiety while swimming generates little selfconfidence and one number bigger of cases with been anxiety somatic and cognitive anxiety.

**Note**

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 FONTOURA, FREDERICO Master Instructor PDIC - Professional Divers Instructor Corporation # 94,444, President of the Instituto Tridente de Educação e Preservação da Vida. Pça da Bandeira, 362 - Passagem Cabo Frio - Rio de Janeiro - CEP 28.906-160 - frederico@tridente.tur.br - (22) 2645-1705.

### COMPARATIVE STUDY BETWEEN THE PRACTITIONERS OF THE SCUBA DIVING AND SWIMMING, IN THE LEVELS OF ANXIETY AND SELF CONFIDENCE

#### Summary

The recreational scuba diving (scuba is self contained to underwater breathing apparatus); it is an aquatic, individual sport and practiced in group, that has its development in its bigger part outdoor, Swimming as well as the Diving is an individual and aquatic sport practiced in group however that it has its development in the biggest indoor part.

The Objective was to evaluate in amateur sportsman of these two activities the presence of cognition anxiety, somatic state anxiety and auto confidence. Moreover to compare between the two activities with characteristics very close with the relation to these psychological elements in both.

Observing the displayed data we conclude that the independent diving develops more the auto confidence, while it significantly lowers the levels of cognition anxiety and been anxiety somatic, while swimming contributes little for the increase of the auto confidence and if it identifies to a bigger number of cases with been somatic state anxiety and cognition anxiety.

**WORDS KEYS:** scuba diving, swimming, anxiety

### ÉTUDE DE DE COMPARATIVE ENTRE LES PRATICIENS LA PLONGÉE DE SCAPHANDRE ET NATATION, AUX NIVEAUX L'Inquiétude ET LA CONFIANCE EN SOI

#### Sommaire

La plongée récréationnelle de scaphandre (le scaphandre est d'un seul bloc à l'appareil respiratoire sous-marin); c'est un sport aquatique et individuel et pratiqué dans le groupe, qu'a son développement dans sa plus grande partie extérieure, natation comme la plongée est une individuelle et le sport aquatique pratiqué dans le groupe cependant ce il a son développement dans la plus grande partie d'intérieur.

L'objectif était d'évaluer dans Esportist d'amateur de ces deux activités la présence de l'inquiétude cognitive, de l'inquiétude somatique d'état et de la auto confiance. D'ailleurs rivaliser entre les deux activités aux caractéristiques très proches avec la relation de ces éléments psychologiques dans tous les deux.

Observant les données montrées nous concluons que la plongée indépendante développe plus la auto confiance, alors qu'elle abaisse de manière significative les niveaux de l'inquiétude cognitive et étés inquiétude somatique, alors que la natation contribue peu pour l'augmentation de la auto confiance et si elle identifie à un plus grand nombre de cas avec été inquiétude somatique et inquiétude cognitive

**CLEFS DE MOTS:** Plongée, Natation, Inquiétude

### ESTUDIO COMPARATIVO ENTRE LOS PRATICANTES DEL BUCEO SCUBA Y NATACIÓN, EN LOS NIVELES LA ANSIEDAD Y CONFIANZA EN UNO MISMO

#### Resumen

El buceo amador; es un deporte acuático, individual y practicado en grupo, que tiene su desarrollo en su parte más grande al aire libre, nadando tan bien como el buceo es un deporte individual y acuático practicado en grupo sin embargo ese él tiene su desarrollo más grande en ambiente interior.

El objetivo era evaluar el esportista aficionado de estas dos actividades la presencia de la ansiedad cognitiva, autoconfianza e la ansiedad estado somática. Por otra parte comparar incorpora las dos actividades con las características muy siguientes que la relación a estos elementos psicologicos en ambos.

Observando los datos exhibidos concluimos que el buceo desarrolla más la autoconfianza, mientras que baja perceptiblemente los niveles de la ansiedad cognitiva y ansiedad estado somática, mientras que la natación contribuye poco para el aumento de la autoconfianza y si identifica a un número más grande de casos con sido ansiedad estado somática y ansiedad cognitiva.

**LLAVES DE LAS PALABRAS:** buceo, natation, ansiedad

### ESTUDO COMPARATIVO ENTRE OS PRATICANTES DO MERGULHO AUTÔNOMO E DA NATAÇÃO, NOS NÍVEIS DE ANSIEDADE E AUTOCONFIANÇA

#### Resumo

O mergulho autônomo recreativo, turístico e de lazer com S.C.U.B.A. (*self contained underwater breathing apparatus*); é um esporte aquático, individual e praticado em grupo, que tem seu desenvolvimento em sua maior parte "outdoor", a Natação assim como o Mergulho é um esporte aquático individual e trabalhado em grupo porém que tem seu desenvolvimento na maior parte "indoor".

O Objetivo foi avaliar em esportistas amadores destas duas atividades a presença de ansiedade cognitiva, ansiedade estado somática e autoconfiança. Além disto comparar entre as duas atividades com características muito próximas qual a relação destes elementos psicológicos em ambas.

Observando os dados expostos concluímos que o mergulho autônomo desenvolve mais a autoconfiança, enquanto abaixa sensivelmente os níveis de ansiedade cognitiva e ansiedade estado somática, enquanto a natação contribui pouco para o aumento da autoconfiança e se identifica um número maior de casos com ansiedade estado somática e ansiedade cognitiva.

**PALAVRAS CHAVES :** Mergulho, Natação, Ansiedade.