

## 142 - PROFILE SOMATOMOTOR OF THE PARTICIPANTS OF PROJECT PIRACEMA SWIMMING FOR CARRYING PEOPLE OF SPECIAL NECESSITIES

VANESSA VIEIRA GUIMARÃES; LAUDEMIRO VOLMAR DA CUNHA TRINDADE;

MARTHA HELENA SEGATTO PEREIRA; SANDRA MARA MAYER

Universidade de Santa Cruz do Sul - UNISC, Santa Cruz do Sul, RS, Brasil.

[vanessapiracema@yahoo.com.br](mailto:vanessapiracema@yahoo.com.br)

### Introduction

The importance to practice a physical activity, for the maintenance of activities of the daily life and autonomy, to the requirements of the work, to the opportunities of leisure and to the reduction of risk to develop health problems requires certain levels of physical aptitude, being basic for deficiency carriers(SHORT, citado por WINNICK, 2004, p. 366).

Because a combination of factors, including disability, superprotection, self-consciousness and pressures of the society, the deficient individuals, many times have a shorter physical activity to that one are not "deficients". This incapacity of a daily physical activity negative affects the functional capacity of the respiratory system, neuromuscular, producing a smaller level of physical aptitude(GORLA, 1997).

According to Lepore, apud Winnick (2004), the aquatic sports provide to physical aptitude and motor development to the carrying child of deficiency, being that the physical and psychosocial benefits are very clear and important. The aquatic activities fortify the muscles, that improve the postural stability and the respiratory control, the abilities of locomotion and, moreover, the movement possibilities that the water offers not only raises the moral, but also increase the potential of other aspects of rehabilitation.

A set of tests whose application is possible in carrying people of deficiency, still is restricted for the lack of research and data, because these tests had been developed in not carrying people of deficiency. Initiatives in the direction of the application of a set of tests seem to us very important. The tests serve to classify, to judge, esteem and to interpret a set of information gotten through the measures. Many individuals present deficiency and difficulties in the performance of basic motor abilities in result of the deficient development in determined physical capacity(GORLA, 1997).

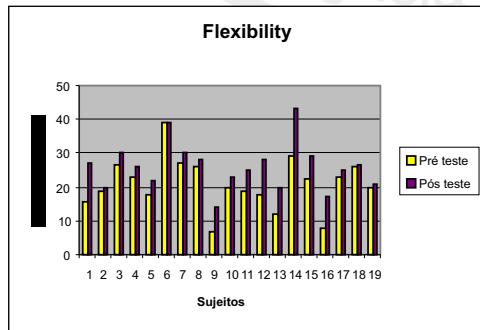
The general objective of this research is to verify the evolution in the individual indices in somatomotor tests of the participants of the Piracema Project: swimming for special carriers of necessities. From this, we present the specific objectives: to apply three tests somatomotor, amongst the battery proposal for the PROESP-BR (2002), to prescribe and to follow aquatic activities and to apply the after-test, using the same protocols of the pre-test.

### Method

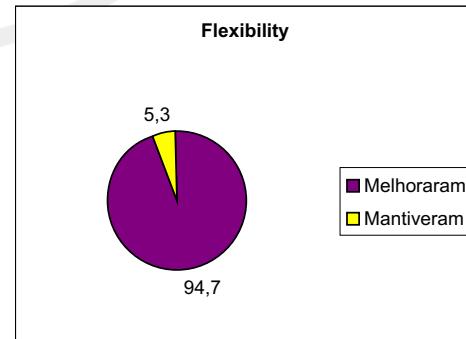
The individuals of the study was 19 carriers of special necessities, participants of the Project Piracema 2004/2005, with age between 05 and 43 years. The citizens had different pathologies, being that 07 (seven) have moderate mental deficiency, 02 (two) have mielomeningocele, 01 (one) have piramidal cerebral paralysis, 02 (two) have luxation of hip, 01 (one) severe mental deficiency, 02 (two) syndrome of down, 01 (one) microcephalia, 01 (one) mental deficiency microcephalia associate, 01 (one) cerebral paralysis of espástica hemiparesia type and 01 (one) moderate mental deficiency. For the collection of the data, they had been used three of the tests of the battery proposal for the Project Brazil Sport (PROESP-BR, 2002), of the Center of Excelência Esportiva (CENESP-UFRGS), being referring to the physical aptitude related to the health (flexibility test - to seat and to reach) and the referring others two to the motor performance (explosive force of inferior members - horizontal jump and explosive force of superior members - medicine ball throw). The aquatic interventions had been realized in the Pedagogical Swimming pools of the University of Santa Cruz do Sul, three times per week and with duration of 60 minutes for session. The citizens had been divided in three groups respecting itself the limitations of each one of the Special Carriers of Necessities. After ten months of intervention through aquatic activities, had been realized the after-tests.

### Results

The results obtained in the flexibility test (to seat and to reach), in relation to the sampling of the pre and pos-test had been the following ones: 94.74% had increased its index and only 5.26% had kept the same index of the pre-test. For Guedes and Guedes (1997), the test to seat and to reach is the described technique most frequent in literature and is presented as an alternative of great viability when of the attainment of information related to the flexibility of children and young people. (graphical 1 and 2).

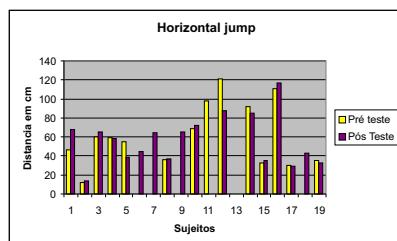


Graphical 1 - Individually results pré and pos-test



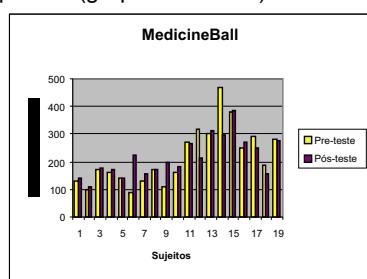
Graphical 2 - Results od test

For the results obtained in the pre and pos-test of explosive force of inferior members - horizontal jump, the results gotten show to us that 42.1% had improved and 31.58% had reduced its index, being that 26.32% had not realized this test. Segundo Lepore, cited for Winnick (2004), many people whose deficiency difficults mobility in the ground, can act of independent form in the aquatic way, without aid of supports: crutches and andadores, due to fluctuation that the water provides. Although they have participated of the test of flexibility and even to the aquatic activities proposals, some of the citizens had not realized the horizontal jump in accordance with the established protocol (graphical 3 and 4).

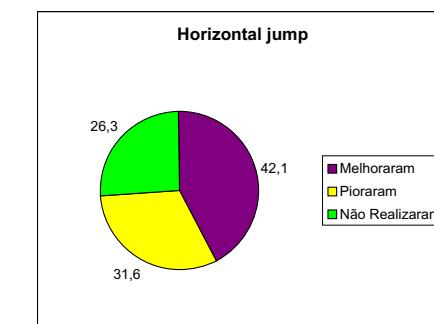


**Graphical 3 - Individually results pré and pos-test**

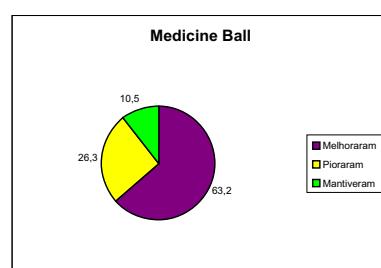
In the test of medicine ball throw, applied to verify the explosive force of superior members, we perceive for the obtained results, that 63.2% of the citizens had improved its individual indices, 26.3% had reduced its indices and 10.5% had kept the same index of the pre-test(Graphical 5 and 6).



**Graphical 5 - Individually results pré and pos-test**



**Graphical 4 - Results od test**



**Graphical 6- Results od test**

### Conclusion

In relation to the study of the somatomotor profile of the participants of the Piracema Project: swimming for special carriers of necessities - UNISC - APAE of Santa Cruz do Sul-RS we perceive, after an intervention of aquatic activities for the period of ten months, that these activities had contributed for the individual improvement in the somatomotors index obtained between the pre and the pos-test.

Analyzing the results of each one of the tests, we can infer that the best ones results had been obtained in the tests referring to the physical aptitude to the health (flexibility test - to seat and to reach), since most of the citizens had increased its individual index. In the referring tests to the motor performance (explosive force of inferior members - horizontal jump and explosive force of superior members - medicine ball throw) we can affirm that: the results obtained in the horizontal jump had not been so positive, because some of the citizens had not realized the pre and/or pos-test in accordance with the protocol established for the PROESP-BR (2002), what it made impracticable to calculate the final results but relation to the test of medicine ball throw, we observe an improvement, when comparative the result of the pre and pos-test.

We conclude that the citizens had gotten more good results in the test of physical aptitude to the health (flexibility test) than those referring tests to the motor performance (explosive force of inferior members and explosive force of superior members) and that, in generally, the results obtained in these somatomotors tests had proven the benefits that the aquatic activities had propitiated for the improvement of these results. We point out, the importance of the application of suitable somatomotor tests as indicating of the health of special carrying people of necessities of our country.

### References

- GORLA, I.G. *Educação física especial: testes*. Rolândia: Psysical-fisio, 1997.
- GUEDES, D.P. e GUEDES, J.E.R. *Crescimento, composição corporal e desempenho motor de crianças e adolescentes*. São Paulo, CLR Balieiro, 1997.
- PROESP/ BR Projeto Esporte Brasil - Indicadores de saúde e fatores de prestação esportiva em crianças e jovens. Manual de aplicação de medidas de testes somatomotores. Setor de Pedagogia do esporte do CENESP- UFRGS. *Revista Perfil*, Santa Cruz do Sul, ano IV, n.6, p. 9-34, 2002.
- WINNICK, J. P. *Educação Física e Esportes Adaptados*. 3ª edição. São Paulo: Manole, 2004.

### PROFILE SOMATOMOTOR OF THE PARTICIPANTS OF PROJECT PIRACEMA - SWIMMING FOR CARRYING PEOPLE OF SPECIAL NECESSITIES

The Piracema Project - Swimming For Carrying People of Special Necessities of the University of Santa Cruz do Sul is realized in partnership with the APAE. When initiating in the project, the participants have to realize a battery of tests somatomotors and, after of 10 months of aquatic intervention, the after-tests are realized. Objective: to verify the evolution in the results of somatomotors tests applied. Method of inquiry: 19 people with age between 5 and 43 years had been subject to this study. In this battery of tests, they applied: flexibility, explosive force of inferior members (horizontal jump) and explosive force of superior members (medicine ball throw). Results: In the flexibility test, 94.74% had increased his indices and 5.26% had kept the same indice of the pre-testing. In relation to the test of the horizontal jump, we verify that 42.1% had improved and 31.58% had reduced the index, 26.32% had not realized the test. In the medicine ball throw, 63.16% had improved his indices, 26.13% had gotten worse in relation to the pre-test. Conclusion: Comparing the pre and pos-test, the results of the tests shown to us that, after the aquatic interference of 10 months, the participants of the Project, in generally, had improved their individual indices.

Key-words: PPNE, aquatic activities, somatomotor

LE PROFIL SOMATOMOTOR DES PARTICIPANTS DU PROJET PIRACEMA - NATATION POUR LES

## PERSONNES PORTANTES DES NÉCESSITÉS SPÉCIALES

Le projet de Piracema - natation pour les personnes portantes des nécessités spéciales de l'université de Santa Cruz de Sul (Universidade de Santa Cruz do Sul)(UNISC) est exécuté dans l'association avec l'association des parents et des amis d'Exceptionals (Associação de Pais e Amigos dos Excepcionais) (APAE). En lançant dans le projet, les participants avaient été soumis à une batterie des somatomotores d'essais et, ensuite 10 mois d'intervention aquatique, des après-essais avait été exécuté. **Objectif:** Vérifier l'évolution dans les résultats des essais a appliqué des somatomotores. **Méthode d'enquête :** Ils avaient participé de cette étude, 19 citoyens portants des nécessités spéciales avec l'âge parmi 5 et 43 ans. Les essais suivants avaient été appliqués : flexibilité, force explosive des membres inférieurs (saut horizontal) et force explosive des membres supérieurs (lance du medicine-ball). **Résultats :** Dans l'essai de flexibilité, 94.74% avaient augmenté ses index et 5.26% avaient gardé l'index du quotidien payent-testagem la même chose. Par rapport à l'essai du saut horizontal, nous vérifions que 42.1% s'étaient améliorés et 31.58% avaient réduit l'index, étant que 26.32% n'avaient pas pu porter par la même chose. Dans un lance du medicine-ball, 63.16% des citoyens avaient amélioré ses index et 26.13% index inférieurs obtenus eux par rapport au payer-essai quotidien. **Conclusion:** Comparant les deux-essais, les résultats des essais dans eu indiqué leur que, après l'intervention aquatique de dix mois, les participants du projet avaient amélioré ses personnels index.

PALAVRAS-CHAVE : PPNE, activités aquatiques, somatomotor

## EL PERFIL SOMATOMOTOR DE LOS PARTICIPANTES DEL PROYECTO PIRACEMA- NATACIÓN PARA PERSONAS CON NECESIDADES ESPECIALES

El Proyecto Piracema - Natación para Personas Portadoras de Necesidades Especiales de la Universidad de Santa Cruz do Sul (Santa Cruz del Sur) (UNISC) y desarrollado en conjunto con la Associação de Pais e Amigos dos Excepcionais (APAE). Al iniciar el Proyecto, los participantes fueron sometidos a diversos exámenes somatomotores y, después de 10 meses de intervención acuática, se realizaron exámenes posteriores. **Objetivo:** Verificar la evolución en los resultados de los exámenes somatomotores realizados. **Método de Investigación:** Participaron de este estudio, 19 personas con necesidades especiales entre 5 y 43 años de edad. Fueron aplicados los siguientes exámenes: flexibilidad, fuerza explosiva de miembros inferiores (salto horizontal) y fuerza explosiva de miembros superiores (lanzamiento de medicine ball). **Resultados:** En el examen de flexibilidad, el 94,74% aumento sus índices y el 5,26% mantuvo el mismo índice con respecto al PRE-examen. En relación al examen de salto horizontal, verificamos que el 42,1% presentó mejoras y el 31,58% redujo el índice, debido a que el 26,32% no pudo realizar el examen antes mencionado. En el lanzamiento de medicine ball, el 63,16% presentó mejoras en sus índices y el 26,13% obtuvo índices mas bajos en relación a los PRE-exámenes. **Conclusión:** comparando el PRÉ y el POST examen, los resultados nos indican que, luego de intervención acuática de diez meses, los participantes del proyecto mejoraron sus índices individuales.

PALAVRAS-CHAVE: PPNE, actividades acuáticas, somatomotor

## PERFIL SOMATOMOTOR DOS PARTICIPANTES DO PROJETO PIRACEMA - NATAÇÃO PARA PESSOAS PORTADORAS DE NECESSIDADES ESPECIAIS

O Projeto Piracema - Natação Para Pessoas Portadoras de Necessidades Especiais da Universidade de Santa Cruz do Sul (UNISC) é realizado em parceria com a Associação de Pais e Amigos dos Excepcionais (APAE). Ao iniciarem no Projeto, os participantes foram submetidos a uma bateria de testes somatomotores e, após de 10 meses de intervenção aquática, foram realizados os pós-testes. **Objetivo:** Verificar a evolução nos resultados dos testes somatomotores aplicados. **Método de investigação:** Participaram desse estudo, 19 sujeitos portadores de necessidades especiais com idade entre 05 e 43 anos. Foram aplicados os seguintes testes: de flexibilidade, força explosiva de membros inferiores (salto horizontal) e força explosiva de membros superiores (arremesso de medicineball). **Resultados:** No teste de flexibilidade, 94,74% aumentaram seus índices e 5,26% mantiveram o mesmo índice da pré-testagem. Em relação ao teste de salto horizontal, verificamos que 42,1% melhoraram e 31,58% reduziram o índice, sendo que 26,32% não puderam realizar o mesmo. No arremesso de medicineball, 63,16% dos sujeitos melhoraram seus índices e 26,13% obtiveram índices mais baixos em relação ao pré-teste. **Conclusão:** Comparando-se o pré e o pós-teste, os resultados nos mostram que, após a intervenção aquática de dez meses, os sujeitos participantes do Projeto, de uma forma geral, melhoraram seus índices individuais.

PALAVRAS-CHAVE: PPNE, atividades aquáticas, somatomotor.