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Abstracts

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POSTER

ASSESSMENT OF SKI RESORTS FOR ADAPTED SKIING PRACTICE: A CASE STUDY (SAN ISIDRO SKI RESORT, SPAIN)

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Key words: adapted alpine skiing, accessibility, safety, personal and material resources.

Introduction
In the field of adapted physical activity coexist multiple models of practice and services delivery (sports, recreation, education or rehabilitation), which closely connect this practice to social wellness and quality of life. One example of physical activity which is being practised by increasing numbers of individuals with disabilities is adapted skiing.

Issues
The research presents an analysis of San Isidro Ski Resort (Leon, Spain) for adapted alpine skiing practice.
To do so, we have carried out a revision of the rules concerning general accessibility and safety at ski resorts (covering items such as car parks, buildings, access to pistes and lifts), and their fulfilment at the ski resort.
Another element studied is the design of the different ski areas in order to know which are more appropriate for beginners, intermediate and expert skiers.
Finally other services offered, such as instructors with specific formation, adapted material (Sit-Ski, stabilizers, guide sistems…) or the role of institutions that promote the practice of this sport, have also been assessed.

Research method
A questionnaire was designed including 30 descriptive basic items and subitems related to the above aspects: barriers, transport, lifts (type, number, access and safety, tickets), ski areas (situation, lifts, type of pistes, difficulty degree for adapted alpine skiing), personal and material resources, institutions that promote this activity, and users in the last two seasons.

The questionnaire was completed by direct observation, data collection among the institutions that offer services at the ski resort and 2007-2008 season adapted ski practitioners.

Results
San Isidro Ski Resort presents acceptable conditions for adapted alpine skiing. There are elements such as accessible buildings, piste safety taken into account, lifts that allow their use by, for example, sit-ski users, ski pistes suitable for beginners with different disabilities, a significant number of pistes for intermediate and expert users, instructors with formation in adapted alpine skiing, facilities to use specific material and institutions that promote the sport.

Discussion
According to the data obtained in this study, since the adapted alpine skiing practice in San Isidro Ski Resort is increasing, it may be necessary to design a programme of improvements in the elements more directly related to the initiation of the sports practice (promotion, types of pistes and lifts), or accessibility in some of the service buildings.

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ELDERLY PEOPLE AND PHYSICAL ACTIVITY: EQUAL OPPORTUNITIES?

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Key words: elderly people, physical activity, playground.

Physical activity increase is important for all age groups, in particular for elderly people; due to the lack of suitable places it is often difficult for them to practice it.
For this reason several projects have been planned to encourage elderly persons to do physical activity in order to improve their health and quality of life.
The first initiative has been carried out at the Preussen-Park in Berlin where an area featuring several pieces of equipment conveniently created for over-65 and those with a height of at least 1,5 m. The project cost about 20.000 euros. A similar playground has been built in Manchester, UK. This park is located close to a children playground and some of its equipment can be also used by disabled people. On what concerns Italy it is important to highlight initiatives undertook by Turin town hall in partnership with SUISM. It is already ten years that 'Giochi d'Argento' (Games for elderly people) are carried out in the city.
This event is reserved to over 60s and it takes place every year from January to June. It features a series of competitions and tournaments of athletics, swimming, tennis, chess, bowling etc. Furthermore during this event promotional physical activity is also offered and it is carried out and supervised by highly qualified trainers. Preparatory meetings are provided for activities such as swimming, gymnastics, etc.
The project for a playground for elderly people has been recently carried on again in the city of Turin following the example given by Berlin and Manchester. The idea consists of creating these areas firstly in council houses' gardens and then in public gardens such as 'Pellerina' and 'San Valentino'. The aim of all these projects is to promote an active lifestyle among elderly people so to improve their health and their quality of life. These activities should be organised in every Italian city in order to give elderly persons the opportunity for a healthy living as well as socialise with others; as a matter of fact, these aspects are fundamental for the life of old person who tend to suffer from laziness and loneliness.

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MUSCULAR STRENGTH, IGF1 AND FUNCTIONAL AUTONOMY IN ELDERLY

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Objective

The present study aimed to evaluate the effects of strength training on the basal levels of IGF-1 and functional autonomy in the neurogenic and myogenic phases of sedentary elderly women.

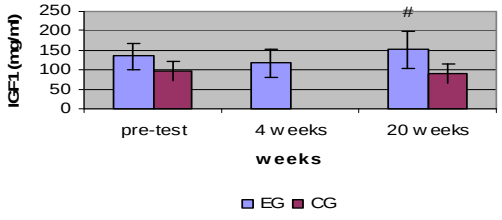
Material and methods

The sample consisted of 24 elderly women volunteers, randomly subdivided in two groups: experimental group (EG, n = 13; 65,62±5,36 years-old) and control group (CG, n = 11; 71,45±5,72 years-old). The maximum repetition protocol (1RM) was utilized to evaluate the maximum muscular strength (BAECHLE & GROVES, 1992); the Chemiluminescence's protocol - IMMULITE – DPC MED LAB, for IGF-1 and the Latin-American Development Group for Maturity (GDLAM – VALE, 2005) protocol to evaluate the functional autonomy. The Kruskal-Wallis' test was utilized (EG, in relation to the three moments) followed by Dunn's multiple comparisons; the Wilcoxon's test (CG, in relation to the two moments) and the Mann-Whitney's test (inter-group comparison) (THOMAS, NELSON & SILVERMAN, 2005).

Results

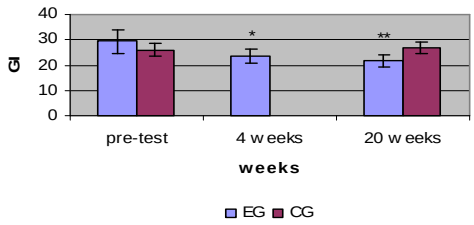
It was revealed a significant increase ($p<0,05$) in IGF-1 (CG20weeks x EG20weeks - $\Delta=54,29$ ng/ml, $p=0,009$ – graph 1) and a decrease in the execution time in all tests from the GDLAM's protocol, reflecting in significant decrease on the GDLAM – IG index (CGpre-test x EG4weeks - $\Delta\%=-8,05\%$, $p=0,0089$; EGpre-test x EG20weeks - $\Delta\%=-25,47\%$, $p=0,0001$- graph 2).

Graph.1: IGF-1,Results



#P<0,05;EG20weeks x CG20weeks

Graph 2: GI Results



*p<0,05; EGpre-test x EG4weeks
**p<0,05; EGpre-test x EG20weeks

Conclusion

This way, it could be concluded that the muscular strength training inferred in significant increase of the serum levels of IGF-1 only in the myogenic phase of EG and significant decrease of GI in the neurogenic and myogenic phases of EG.

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LONG TERM ATHLETE DEVELOPMENT-INCLUSIVE OF ATHLETES WITH DISABILITIES

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Key words: long term athlete development, inclusive sport, stage by stage development.

Introduction
Long Term Athlete Development (LTAD) is rooted in a philosophy that values both podium performances and physical activity for life. The LTAD model, based in scientific research and practical coaching experience, is a framework for optimal training, competition, and a recovery schedule for each stage of athletic development. There was concern or questions raised regarding the inclusion of athletes with disabilities (both intellectual and physical). In Canada they have gone one step further, making sure that official Special Olympics and Paralympic sports include athletes with a disability (physical or intellectual), in their athlete/participant development models.

Issues
The LTAD includes a stage by stage approach that acknowledges developmental age as being a key feature to how an individual progresses through the various stages. But what do we know about athletes with disabilites and developmental age, progression, and these stages? Should there be more, or less, or different stages for athletes with disabilities? What do we know, what do we not know?

Research Methods
A Long Term Athlete Development Expert Committee was developed and included two individuals (Bluechardt and Higgs) with a focus on athletes with disabilities. Each National Sport Organization established Steering Committee's who worked with the experts in consultation with the larger sport community, in the development of their models. A special committee of consultants developed what is entitled "No Accidental Champions," specific to persons with disabilities to assist in developing the sport models. Various methods such as survey and questionnaire's were used to gain greater insight into the inclusive nature of various sports across the country.

Results
The results highlight some of the reasons for LTAD for athletes with disabilities. Some of these include: gaps in the current development pathway for athletes with an disability; lack of a streamlined, efficient system that is progressive and aligns the right opportunities with the developmental level of the participants; lack of communication between the partners (e.g., levels of government, National Sport Organizations, Multi Sport Organizations and other organizations providing physical activity opportunities for people with disabilities); to facilitate lifelong enjoyment in, and benefit from, physical activity.

Discussion
The Long Term Athlete Development project has resulted in the need for two additional stages in order to result in an inclusive model. The results indicate it is possibile to have an efficient and inclusive sport system, regardless of ability. As this project continues to evolve, we are seeing a coming together, a common language being used in sport, by the coaches, athletes, parents, sport administrators, and government officials.

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SELF-ESTEEM AND SELF-EFFICACY IN ATHLETES WITH INTELLECTUAL DISABILITIES

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Keywords: Self-Esteem; Self-Efficacy; Intellectual Disabilities.

Introduction
Self-perception measurement in the physical domain has developed dramatically in recent decades (Fox, 1998), but investigations of selfperceptions in the area disability sport are still in a holding area. The self-efficacy construct is one of the most influential psychological constructs thought to affect achievement strivings in sport (Feltz, 1988). People with high self-efficacy perceive difficult tasks as challenges rather than threats; whereas, people with low self-efficacy avoid difficult tasks and perceive them as personal threats (Bandura, 1994). One way to boost the improvement of positive selfperceptions in individual with a disability is to promote the participation in sports, recreational or competitive nature (Fox, 2000).

Issues
The purpose of the present study was to investigate physical competence and self-esteem, of athletes with intellectual disabilities.

Research Methods
Various psychometric instruments have been developed to assess self-efficacy for physical activities, but we choose the ten-item subscale of Perceived Physical Ability (has a range from 10 to 60) of the Physical Self-efficacy scale (Ryckman, Robbins, Thornton, & Cantrell, 1982), a 22-item scale that requires participants to indicate the extent to which they believe each item reflects their own capabilities. The PPA was used exclusively as a measure of physical self-efficacy in the current analyses.
To asses self-esteem we used the Rosenberg Self-esteem scale (Rosenberg, 1965). The measure is a well-validated 10-item assessment of one's overall evaluation of selfworth. The RSE has been widely used in several domains of self-esteem research including physical activity.
This study involved a sample of 37 portuguese athletes with intellectual disability, 11 female and 26 male, aged between 12 and 42 years (mean = 23.65, sd = 6.16).

Results
There were no statistically significant differences found and results show that male athletes are perceived in a more positive view of self-efficacy. Female athletes have higher levels of global self-esteem.

Discussion
The current study attempted to combine the constructs of physical self-efficacy and self-esteem with athletes with intellectual disabilities. Although the findings were not statistically significant, the information gained through this study is beneficial.
This study was exploratory in nature and was intended to open the door for more research about self-efficacy and self-esteem in athletes with intellectual disabilities.

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POSTURE-PROPRIOCEPTIVE A POSSIBLE AND MEASURABLE RELATIONSHIP

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Introduction
In the postural construction the Proprioceptive is often used, the methodic is based on the variation of the stimuli more than on the intensity and on the load, the effectiveness of this methodic is of difficulty measurement.
The aim of this study is to test and quantify the effects of the Proprioceptive analyzing the assignments that the involved structures must acquit as the Postural control.
To study the effects has been analysised the Foot, an articular that is particularly solicited by the load
Analysis is turned to a competitive sport sector as the volleyball that surely constitutes an example of important solicitation, the results that come out will easily transferred, with due methodological adaptations, in those situation of adapting people where it is lent necessary to work on the posture.

Results of the study
Methods of elaboration
Two groups have been individualized, one stressed on the work/charge and one of control, chosen after having checked 400 questionnaires sent to seven volleyball sporting club .After having verified with a statistic investigation "t" to $P < 0,05$ the homogeneity among the groups the two groups choosen were constituted by 10 girls of forteen years old.
The group of work/charge has been submitted to an intense work of Proprioceptive for seven weeks with three weekly sessions. To the beginning and at the end of the program the 20 girls, convocated in alphabetical order, where mixed between work/charge and Control, has been submitted to analysis on a computerized Baropodometrica platform with evaluation of the surface, of the load, both with closed and open eyes, for a total of 640 data, realized by external operator to guarantee its impartiality.For the interpretation a run of normalization of the values is used reporting them to a staircase -4 +4 considering the approach or the leaving to the charts of normalcy.

Discussion of the results
The analysis of the values has brought to underline a marked improvement especially in the statics and middle values have passed by -0,33 to 0,45 for the group of work/charge in comparison to -0,33 -0,35 for the group of control, with values of HS "t" $p > 0,01$, confirmed by the cross analysis, Before Job / Control and Before / After Control of Homogeneity $p < 005$.

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ITALIAN TRACK AND FIELD CHAMPIONSHIPS FOR THE INTELLECTIVE-RELATIONAL DISABLED: A FOUR-YEAR (2004-2007) QUANTITATIVE AND QUALITATIVE ANALYSIS

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Key words: Athletics Tracks, Disabled Athletes - IRD, Italian Championships.

Introduction

In Italy, the efficacious Coordinating Institution I.P.C. promotes sport activity for people with Intellective-Relational Disability – IRD. Data today indicate 5290 athletes having an IRD membership card and 395 Sport Associations being I.P.C. – IRD affiliated. Standard participation at competitions has been subdivided in basic and advanced levels. Purpose of this study is to certify that between 2004 and 2007 at Italian Track and Field Championships for disabled people there was: 1) an increase in quantity of athletes (linear increase of number of people practicing this sport) and also in quality (increased number of athletes participating in 2007 at advanced level competitions) 2) if a substantial increase of Sport Associations adhering to Championships.

Methods

The analysis has been carried out based on data received by I.P.C. as regards the number of athletes, who participated at the Italian Track and Field Events, which took place in: Sciacca (2004), S.Donato Milanese (2005), Rovigo (2006), Scandiano (2007). Differences among the participants as to their gender and competition level were analysed with Pearson's Chi-square test and confirmed by the O.R. (odds ratio) values.

Results

Data indicate an increased number of both genders in the whole four-year period, with males significantly prevailing on females. Number of athletes having a basic level membership card was higher than those at advanced level, however, with a progressing decrease of this difference. Quantity wise, a linear increase of number of participants at the Italian Championships is evident: year 2005 (+ 26% in 2004), year 2006 (+ 11, 9% in 2005), year 2007 (+ 12, 92 % in 2006) giving a total increase of 59, 38%. As for the participating Sport Associations the trend is not linear but, after a decrease in the two central years, the number of Sport Associations has become significant again. Participating Associations were 55 in 2004, 47 in 2005 (-15% in 2004), 46 in 2006 (-2 % in 2005), 56 in 2007 (+27, 7% in 2006). The reasons for this discontinuous tendency could be ascribed to the difficulties encountered by Sport Groups to organise temporary transfers away from their sites.

Conclusions

Data show a progressive increase in number of athletes but a stationary situation of the number of Associations. The significant increase of participating athletes may be due to an efficacious promotion by the Territorial Bodies and by IPC Sport Associations among people with IRD. The mentioned increase, at both basic and advanced levels, during the four-year period, seems also to indicated that the Associations, even if low in numbers (56 in Italy), are working well. As regards the gender, the fact that 2/3 of participants were males, suggests that maybe, through an appropriate revision and adaptation of competitions, a higher number of females could be involved, unless, the type of disability is the leading factor for many female athletes to abandon sport activity.

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INCLUSION & INTEGRATION OF DISABLED STUDENTS IN REGULAR PE: QUANTITATIVE INVESTIGATION ABOUT TEACHERS POINTVIEW

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Introduction

In Italian regular school, the inclusion and integration of all disabled students are implemented with four step in the last century: 1st) early 1900s: general pedagogy based on the affirmation of individual difference as resource for democratic society and education; 2nd) 1970s: closing of special schools by legislation and laws; 3rd) 1980-1990s: special pedagogy trained special resources for Special Educational Needs (SEN) (support teacher, special methodology of teaching&learning, special instrumentals…); 4th)1990-2000s: integration of APA training in the regular university curricola of Motion and Sport Science Faculty .(Council of Ministers of Europe-Charter of Sport for all Person with Disabilities,1987).

Issues

The research aims at investigating the PE teachers pointview about inclusion and integration (II) of disabled students(DS) in the regular PE. The questions concern: a) Demographic Data (gender, age); b)APA training; c)Apa teaching experience; d)Positive perception-readness to adaptation of PE teaching for II of DS teaching in inclusion. Aims at investigating whether if there is different pointview about PE teachers attend MSSF and SIS. MSSF students are trained in APA for 3CFU (Credit Formative in University) for total 24 hours. SIS students are trained in APA for 3CFU+3CFU for total 48/50hours.

Research methods

The survey is quantitative, data are collected by interviews, statistical analysis is descriptive (means, frequency, standards deviation, percentage)

The sample consist of 220 subjects from 2 groups:1.students at MSSF (Bachelor) (n1=110); 2. students at SIS (specialization) (n2=110).

Results: a. Demographic data a. Gender MSSF (Female 31,8%-n=35, Male 68,2%-n=75); SIS (Female 56,6%-n=59; Male43,4%-n=51); Age MSSF (22,2 years; ±20-30), SIS (37,2years; ±30-51); b. APA training MSSF (No 88,3%-Yes 16,6%), SIS (No 9,3%-Yes 90,7%); c. Apa teaching experience MSSF (No 70,83%-Yes 29,17%), SIS (No 6,78%-Yes 93,22%); d. Positive perception- Readiness to adaptation of PE teaching for II of DS MSSF (Yes 75%-No 25%) SIS (Yes 95,3%-No 4,7%)

Discussion: the finding prove that in the MSSF group the majority is represented by men (68,2%), whereas in the SIS group the women count for 56,6%.This probably due to fact that far more women than man choose to teach in the school after they graduate.

The older age ($\bar{x}$37,2years), more APA training(90,7%) and experience (93,22%) about SIS group confirm the more competence in Apa teaching.

Conclusion

The data confirm the indication of Charter of Sport for all(1987) about the importance of APA training at all level of University curricola.

The APA PE teachers training is important in a society where is a steady growth in the number of subjects with special needs as stated in the European Council of Lisbon(2000). Special needs far from being a burden, students with special needs are on the contrary a special resources for better society.

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LABORATORY CONFIGURATION FOR THE KINETICS, KINEMATIC, AND PHYSIOLOGICAL STUDIES OF THE SPINAL CORD INJURY IN THE PROPULSION OF WHEELCHAIRS

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Keywords: Spinal Cord Injury, Wheelchairs, Propulsion, Biomechanics, Physiology.

Objectives
To develop a methodology that will allow the study of the biomechanic behavior of the upper limbs of people with espinal cord injury when wheelchair propulsion takes place; also study their physiological behavior and its adaptations to the effort. On the other hand we expect to emphasize the functional model of this methodology in a hospital environment as scenary of initiation of atheltic skills for disabled people. Once the methodology is taken into action and proven to work we intend to design and customize a wheelchair that will reduce the work overload of the anatomic structure of the upper body part and its implications on functionality and, in athletic skills, having into account from high performance in sport to sedentary populations, focusing in health and injury phsiology among others, taking part in the promotion of Physical Activity as a rehabilitating factor inside the hospital.

Method and Materials
Due to the lack of movement analysis laboratories that study this methodology we have reviewed bibliography, visited many centers and interviewed many experts in the area.

Results
We present acquisition results of the equipment and the tasks necessary to equip a complete laboratory that include a treadmill, adapted with a load-cell, an EMG system (Noraxon), a portable metabolic test system (Cortex-Metamax 3B) syncronized with a Cardiac Frequency register (Polar), a Kinematic Analysis Equipment (kinescan-IBV), and a kinetic analysis System (Smart-Wheel) based on instrumental wheels with dynamometers that allow to obtain force and moment that the hand applies on the hand-rim in contact with the propulsed wheel. In addition, there has been finalized the model of upper limbs wich, departing from the previous data, allows to obtain joint forces and moments.

Commentaries and Conclusions
We present all the operational, structural and programming tools to make effective this biomechanical and physiological analysis of the wheelchair propulsion. We also conclude in regards to future investigation lines applied to physical activity in a hospital-athletic environment.

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SPORT, MOTOR ACTIVITIES AND DISABILITY IN EDUCATIONAL FIELDS: FEATURES AND POSSIBILITIES OF APPLICATION OF THE MOVEMENT ASSESSMENT BATTERY FOR CHILDREN

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Keywords: Motor assessment, motor activities, school.

The assessment of motor-sporting activities in educational fields requires on the part of the teacher, the functional integration of scientific instruments and didactic methodologies, suitable to insert surveys harmonically into the formative school offer. The instrumental features and the methodological profile of the *Movement Assessment Battery for Children* represents as a whole an original model of integral use of a formal evaluation and of a less formal evaluation. The former concurs to obtain numerical scores, the latter gives stress to the qualitative information as a consequences of the motor and behavioural observations and from the consideration of the possible presence of deficit or difficulties that can influence the motor performances of children. The didactic potential of this model is findable in the complementary employment of two instruments: the *Tests* and the *Check-list*. They help to delineate, through playful activities of easy realization, a profile of the difficulties of the children in relation to the different motor actions and the various learning atmosphere sets, organizing effectively and with consciousness, a global and balanced rehabilitation program (Henderson ET al., 1999). The playful features of the *Tests*, the easiness and familiarity of the behaviours to observe in the *Check-list*, permit to create a flexible and easy searching instrument to insert in the curricular and extracurricular school activities predisposing spaces that receive the complexity of the didactic search such as a "praxis oriented to the improvement of the teaching and learning processes" (Kemmis, S. & McTaggart R., 1988). The surveying model, as well as representing a scientific procedure according to the method of the action-research, can favour a process of motor assessment of the differently-abled children through playful activities. The methodology can favour the work of the differently-abled support teacher that operates in the primary school in order to read and contextualize the functional diagnosis of the disability, gathering a lot of indispensable information in order to predispose the dynamic and functional profile. In conclusion the *Movement Assessment Battery for Children* can represent a preliminary, intermediate and final type of assessment to use in the personalized educational plan for differently-abled children in the primary school for the part dedicated to the motor area.

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FITNESS AND SPORTS FOR DISABLED PEOPLE WHO LIVE IN LOMBARDY: A COGNITIVE SURVEY THROUGH SPORT CLUBS

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Key words: APA, Disabled people, Sport clubs.

Introduction
The choice of this research concerning the motor skills and physical fitness of disabled people living in Lombardy, a region in northern Italy, is to undercover the present major problems. It is to propose suitable solutions and to understand what necessary components are needed to allow sports affiliated institutions such as clubs be able to function at their maximum capability to assist those with disabilities.

Materials and methods
By conducting a survey, consisting of questions and answers and multiple choices, 86 sports clubs and gyms in and around the Lombardy area were asked to participate.

Results
The results emphasized the clubs that had a greater number of disabled athletes (between 125 and 150) had also a higher number of employees as well: instructors, volunteers and some physical education teachers. There were three basic facilities used: a gym, a swimming pool and depending on the situation either horse riding grounds or a soccer field. It showed that within the employees, a complete medical staff of specialists (40% doctors, 22% pedagogues and 38% psychologists) were
included. The results also demonstrate that the clubs with a higher amount of facilities can offer a wide range of sports therefore satisfying the different needs of disabled people and above all: preserving their rights. A problem arose when the presidents and their staff's need to select
the appropriate activities to be assigned suitably to each disabled athlete. Another problem was the choice of hiring a non-specialized staff (76% volunteers, 4% physical educational teachers and 20% sports instructors), even if there was an economic advantage, it seemed it could deprive the maximum of services available to these athletes. The lack of a qualified staff could hinder or limit the availability of these athletes taking part in various sports events (less than 50% take part in competitions).

Conclusion
The research revealed that even today it is still necessary in dealing with the knowledge and requirements of the disabled athlete, it is not only the good effort or to improvise but above all the need and use of a professional staff.

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AN INTERVENTION IN ORDER TO DEVELOP AND STRENGTHEN THE ADAPTED PHYSICAL ACTIVITY IN SCHOOL: THE EXPERIENCE IN THE PAVIA AREA

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Key words: APA, Disabled people, Primary and secondary school.

Introduction

The recent theories underline that in the educational field in order to allow the best learning, it is necessary "the know how " in the first place and this is particularly true when dealing with disabled pupils. In APA, a system of planning development and control has been developed, and it offers the tools for school inclusion of disabled students, connecting online with the different educational and institutional agencies. The data collected in 2005 from an inside survey in the primary and secondary schools of Pavia's Province and those of the scholastic year 2007/2008, confirm that the relationship between support teachers and disabled students is 1:3. This situation during the physical education lessons worsens, because the support teacher must integrate as much as possible with the activities proposed to the student. It is considered useful for a physical education graduate to have a role in order to combine mental and motor learning together and to try to prevent "learning troubles and scholastic delay" (ICD-10, DSM IV) recorded important in secondary school.

Materials and methods

The "Project for disabled people" has been structured and realized: it involves 16 disabled children in the primary and secondary schools, managed by a tutor in cooperation with physical education and support teachers. The systematic observation, compiled through 7 global survey check-lists, has furnished both qualitative and quantitative data. APA proposals have been applied psychomotor intervention methodologies. For each school, there are elaborated interventions already in progress corresponding with the province's project.

Results

From the data's analysis it reveals that:

- at the motor level: an improvement of balance and general dynamic coordination; better knowledge of the body scheme and therefore structuring the knowledge of space;
- increase of the integration between the disabled students and their companions.

During a.s. 2007-2008, the interventions have been widened to primary school (with two mental retardation students and an Asperger Syndrome), and to lower secondary school (a mental retardation and an ADHD Syndrome) and to higher secondary school (two blind students) and the results have been achieved:

- relationship: better integration of disabled students inside the class;
- better motor learning with a particular reference to the attention capacity.

Conclusion

The formative tools, currently available in school, are inadequate to satisfy the requirements of the ministerial curriculum. The realization of a project, whose aim is the integration and the actual development of meaningful didactically activities is possible. It is desirable through a net's system to propose offered didactic meaningful offered within the APA, through the organization coordinated by the territorial potentialities.

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DIFFERENT ABILITIES - YOUTH AND LIFE: A PROJECT FROM THE TOWN OF TRIESTE

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Key words: APA, Disabled people, Secondary school.

Introduction

The project had involved more than 800 students who attend all the high schools in Trieste and also included the Slovenian minority and had been created in Trieste (2003) by Marco Drabeni, counsellor for the disabled, youth, education and promotion for voluntary work. It has been prolonged for 5 years and it is still being reiterated in its contents and adaptation to meet new needs.

Materials and methods

The main issue, that is characterized also in its the originality, has been to encourage young people to identify with the reality of the disabled through sport, but also with reflections and connections with everyday living, relationships, work life, studying and leisure time activity. Particular attention has been given to the educative, social, cultural, didactic and methodological aspects with a comparison between Italian and European realities of life.

The project has been structured in many different formative and operative steps. From times of common comparison during the initial, middle and final stages through meetings, work groups and personal elaboration. The project has received the teachers' support who are bonded with local, national and international realities.

The second meeting (2005), had been planned during the EUPEA forum in Trieste (25 UE countries) dealing with the education of youth and disability (500 students).

In laboratories, students had identified themselves with practical experiences in different sports (for example: torball, blind climbing, diving, athletics for amputees, soccer for the deaf). Young people and reporters had transcribed their own sensations and impressions. Infact abstracts (Drabeni, 2007) and the book "L'attività fisica adattata: per i disabili: la realtà italiana ed europea" (Drabeni, Eid, 2008) have been published.

Results

For young people it has taken on the meaning of being constant and not occasional. It has had a great resonance over the territories and regional, national and international values, also involving great coverage with the mass media, both in print and on TV.

The project has found the support of the Ministry of Education, which has considered it as one of Italian's best experience; the support and legal representation of Friuli Venezia Giulia Region and Trieste's Province, many different European, national, regional and local realities, such as the EUPEA, university of Trieste and Udine, Medical sport regional centre, many other associations in the volunteers' world and many sport testimonies. It has been created a pool of "testimonials of different abilities" giving awareness to the different categories of the life of a disabled; work, study, sports and age with consultative and purposeful functions.

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PHYSICAL EDUCATION COURSE EXPERIENCES OF STUDENTS WITH PHYSICAL DISABILITIES

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Physical Education (PE) classes present different kind of sports to students with disability, offer them sociability and help them to be more self-sufficient in the future. PE classes have good effects on students and they are the reason for them to be into sports rest of their lives. Therefore, the aim of this study was to examine PE course experiences of students with physical disabilities from their point of view.

A total of 32 students (6th, 7th and 8th grade pupils) aged between 14-16 years old from special school for children with physical disabilities participated to this study. Four focus group interviews were conducted by two researchers and data were subjected to a qualitative analysis. Each focus group composed of eight students and each focus group interview took approximately 60 minutes. The data obtained from interviews were classified as; attending to PE (physical education) course; interaction during the PE course and bodily experiences in PE course.

According to theme of attending to PE course, the most significant participation reasons for students were to relax mentally, to gain physical strength, to play games and to taste winning / loosing by doing sports. With regard to the theme of interaction during the PE course, despite having disabled organs in different parts of their body, they tried to do their best performance during the exercises, they competed with each other and having disabled body was not a factor to feel embarrassment in any situation for them. On the other hand, female students felt uncomfortable when a male PE trainer touched disabled parts of their body. With respect to theme of bodily experiences in PE course, the hardest physical activities for them were stretching exercises. However, being disabled was not a handicap for them to force their limits to achieve the movements, moreover, they had a desire to do different types of activities which were expected to be practiced in PE courses. Students also required to had various activities which were not included in PE courses for disabled students.

As a result, physically disabled students were eager to participate in PE courses. During the course period, they had good attitudes towards each other and they didn't have fear to force their limits. However, female students felt indisposed when a male PE trainer touched to disabled parts of their bodies.

MODELED PHYSICAL ACTIVITY: ENHANCING LIFE QUALITY OF A BRAIN DAMAGE SUFFERER THROUGH MOTORIAL RECOVERY

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Key words: brain damage, motorial recovery, modeled activity, balance, gym, sense, perception.

This work describe a two year modeled physical activity with a 10 years old female infant affected by a serious perinatal cerebral damage. The target is to prove that consistent activities and drives, based on the single individual peculiarity, can increase autonomy degree of a brain damage sufferer, enhancing his/her life quality. The project is focused on the balance, on the deambulation aimed to enhance movements capability, on the sensory perception aimed to sensorial drive and finally on social integration purpose. It's important to highlight the motorial playful aspect of this work, as the whole activity has been driven in this way and through this the infant has been able to execute all proposed activities. All work locations (gym and amusement park) have been proposed as new environment to be uncovered and experienced, letting the whole initiative to the infant, actual main character of the whole project.
To be appreciated the great results in every interest field that came out from specific tests about balance and deambulation, in addition to the analysis of an evaluation survey.
Since the peculiarity and seriousness of this case study (even under medical study research), please note that data from this study are not outlining an absolute certainty, but surely they provide a guideline, also practical, about the intervention of a motor science graduated.

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INCLUSION OF STUDENTS WITH DISABILITIES IN REGULAR PHYSICAL EDUCATION CLASSES, CITY OF BAURU, BRAZIL

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Key words: Inclusive physical education, visual impairment, physical education schools.

This research was developed in order to bring public attention to the issue of inclusion in physical education (P.E.) classes in regular school settings, and to investigate teaching strategies. Community projects at the State University of São Paulo (UNESP), Bauru, provide university students with an opportunity to learn through experience, practice, and research. In the current study, it provided the setting to investigate issues related to inclusive P.E. The goal of the study was to investigate the dynamic of inclusion on P.E. classes that included a student with multiple disabilities, and one with a visual disability. The method used was systematic observation, through videotaping, of P.E. classes. In the case of the student with multiple disabilities, it was first proposed that she would participate in the activities along with the other students. Yet, it was immediately discovered that this was not possible, and a change in strategy was required that utilized the dynamic of individualized activities, and which took into consideration her individual physical, social, affective, and cognitive abilities. The student with a visual disability participated in classes with the assistance of a peer tutor (Lieberman, et al, 1997). He was communicative, observant, and participatory. He often sat with his face in a downward position, like that of someone who is thinking, but with his fingers over his eyes. He required detailed explanations in order to execute the exercises. An analysis of the data revealed that inclusion represents many notions. In both classes, a state was reached in which all students participated. The use of the strategy of employing a peer tutor seemed to make inclusion easier. Therefore, it appears that an informed physical education teacher is essential to the process of successful inclusion. So, the second part of the research with of the teacher through the Pedagogical Consultancy specific for the Inclusion. Interviews took place both before and after the videotaping, and helped to identify the important points for researchers and teachers to consider. They include talking about specific disabilities; criteria for the selection of course content; analysis through videotape; and searching for optimum teaching strategies. We concluded that effective inclusion in physical education classes is highly dependent up in the efficacy is the physical educations teacher.

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THE PEDAGOGICAL PRACTICE OF PHYSICAL EDUCATION TEACHERS' IN INCLUSIVE CLASSES

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Key words: students with disabilities; inclusion; pedagogical practice.

At the moment, Brazilian schools are passing through a difficult and complex transition period, with regards to the challenges of the inclusion process and to move from an integration paradigm, where the differences are considered something of a run away "normality", to the inclusion one, which visualizes them as a wealth source. The inclusion paradigm demands a change in attitudes, mainly in relation to teachers' pedagogical practice, in which they have to promote changes for the construction of a school for all. In this context and believing the relevance of the teaching action as the central aspect in the inclusion process of pupils with disabilities, we analyze Physical Education teachers' knowledge in inclusive classes in schools of Maceio city in relation to strategies that respect diversity, as well as analyze their pedagogical practice in these groups. This was a qualitative research, involving 8 Physical Education teachers, who worked in inclusive classes. In particular, there were students with physical or hearing disabilities in these classes, who were enrolled during the school year of 2006 and 2007. For the collection of data the semi-structuralized interview was used, as well as direct observation of the teachers' classes. The results pointed to teachers' under training with regards to diversity in their lessons, and revealed the necessity of more engaged attitudes to the education of all students. Pedagogical practice observations indicated that the majority of teachers were not able to motivate the pupils to participate; sports were valued in comparison to other activities (such as dance, gymnastics, fights, and games); the activities developed had competitive and/or individualistic aims; and that the activities were organized by gender criteria. These aspects affirm that homogeneity is a strong value to these teachers in contrast to values attributed to diversity. In addition, the pupils with some disability or lesser fitness had huge difficulties in taking part in these lessons. In this context, the inclusion process will only be a reality, when Physical Education teachers change their attitudes, have consciousness of their function as an educator and their requirement to promote the education of all the pupils, independent of their condition.

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HYPOTHESIS OF SCHOOL-BASED, DIAGNOSTIC AND INTEGRATIVE MODEL FOR CHILDREN'S MOVEMENT ASSESSMENT IN PRIMARY SCHOOL

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Key words: Movement Assessment, Disability, Methodology, Tests, Primary School.

The various features of children's development and maturation, during their growth, lead to different school-based activities and time scales. Therefore individualized intervention is often necessary in the motor field, as well. When carrying out school-based and extracurricular activities, impairment of controlled and coordinated movement can negatively influence the child's learning strategies and self-esteem, especially if the child presents motor problems, dyspraxia, motor adaptation difficulties or developmental coordination disorders, not related to pervasive developmental disorders, cerebral palsy, hemiplegia, muscular dystrophy and mental retardation (Apa, 2000, p. 56). It is estimated that more than 6% (Apa, 2000, p. 57) of developmental coordination disorders is found in children between the age of 5 and 11. Therefore, the teacher's task is to give accurate assessment of the child's motor skills, which are necessary for his autonomy. An internationally respected and backed method, which can also be used in the educational field, is the Berry-Buktenica Developmental Test of Visual-Motor Integration, reference no. VMI, which provides a sequence of various tasks using 27 items at the most. The Berry WMI is made up of a visual ability test (in which the individual must be able to recognize 27 geometric forms in 3 minutes) and motor coordination test. In both test the individual must trace stimulus forms following a certain route in 5 minutes so that a comparison between the individual's visual and motor performances can be made. A further educational-integrative assessment model is the Piaget-Head Battery, reference no. guaranteed by Nadine Galifret-Granjon, which helps study the laterality and the controlled and coordinated movement of a child from the age of 6 to 14. Children's movement assessment in primary school, paying particular attention to physical disorders, must therefore be carried out according to the educational structure, features and functions of the activity. Furthermore, it requires an original interdisciplinary approach based on a psychopedagogic view of the educational-integrative intervention.

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THERAPEUTIC HORSEBACK RIDING AND WATER SPORTS AS INTEGRATION MEANS FOR DISABLED CHILDREN

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Key words: adapted physical activity, hippotherapy, therapeutic riding, water sports, disabled children.

Introduction

The role of adapted physical activity and sport as a means of meeting the needs of individuals with disabilities will be always discussed and programs will be develop.

The aim of the paper is to present the practice of adaptive physical activity with integration of horseback riding and water sports (swimming, rowing, sailing) for disabled children organized by Sport club "Special Olympics - Triadiza"; Sport club "Para Olympic - NSA" „Ustrem" Association, and "Vassil Levski"- National Sports Academy.

Methodology and physical activity

Every year 15-20 children participate in Hippotherapy, or Therapeutic riding program twice weekly with duration 20-30 min for 6 months. Training by Hippotherapy and Therapeutic riding are included in the education of Adaptive physical activity. By the end of the Therapeutic riding course there is special competition for disabled children.

The activities of water course are connected to the organization of 14 days of summer water sport school for the same children with disabilities at the town of Nessebar (Black sea).

The courses of Therapeutic riding and water sports are supported by Master students of National Sports Academy with specialization in Adapted physical activity.

Results

The courses stimulate the positive emotions and develop the social integration of children and adolescents with disability. The sport activities improve educational quality and professional training of students in the field of the Adapted Physical Activities by mean of practical university programs.

Conclusion

This initiative is a model for coordination of cooperative activity in the above field with partners of non-governmental part of the civil society. It is an example for concrete realization of the social politics according to the European criteria for equality, accessibility and a society without barriers.

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WHEELCHAIRDANCE (Joy for Dance)

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Key words: disability, adapted-dance, self-expression.

Introduction
Wheelchair Dance is an Adapted Physical Activity for people who are on a wheel chair.
This activity gives people with a handicap in their movement, the possibility to dance, to enjoy the music and to express their own personality and artistry. The wheelchair is for these people a way to take revenge for themselves: it's a means not an aim, to do something.
The fundamental aims of the activity are: an improvement of their movement ability, co-ordination, memory, spatial and temporal orienteering, social integration, socialisation. All of these can bring to an increase of self-evaluation, and give more importance to how they really are instead of how they appear…

Issue
The presentation and the 4-years experience with our girls and boys.
In order to perform this activity we need an open space without obstacles, fairly big and accessible to everybody (usually the gyms of the schools are fine).
If the physical conditions of the guys allow it, they will use sport wheelchair adapted to the activity (lighter, with lower backrest and bell-mouthed wheels). If not, they will use their own wheelchairs.
All teachers are qualified.

Methodology
All people with a movement handicap can practise WHC: in fact, is not important how far is the movement, but understand which is the direction of movement and try to do their own best to get the result.
People who can't push their wheelchair , need an assistant, who will dance with them. The assistants can move, dancing, from a disabled to another, so we can reach the best integration between people with a disability and people without.
Every disabled isn't simply a sitting people; he/she is somebody who listens, has emotions, communicates (as far as he/she can), has its own ideas… with WCD we let them express themselves with the movement, in the music.
All different types of Dance can be explored: ballroom, latin, popular, free-style…
Good results has been reached using different "objects": loops, sticks, scarfs: a new way for disabled to discover new movements and to move with their partners.
As a consequence there is the necessity to design programs of improvement for this activity and to promote it as much as possible.

Results
It's incredible how much people with no habit to move, apart the ordinary movements needed for their life, can improve the range of their movement… and it's incredible how much people who can move only one arm, can be expressive in the dancing…

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THE ASSESSMENT OF THE AESTHETICS OF THE MOVEMENT AT CHILDREN WITH VISUAL IMPAIRMENT

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Key words: disability, exercise, physical activity, motion, aesthetic, visual impairment.

Introduction
Physical activity of blind people is to a large degree limited as a result of a loss or defect of vision. As a consequence, mobility and physical fitness, aesthetic of these people is low. This affects destructively spontaneous imitation, limits the possibility to correct movements, causes motor passivity. On the basis of physiological and psychological analysis it may be said that the reasons for the limitations, e.g. in lightness, tempo, harmony, precision of movement, are mainly deficiencies in precise verbal information on the scope and form of movement. In general, it may be said that due to the lack of vision aesthetic movement is significantly limited and movement is carried out over a longer time.

Issues
In order to specify the differences between groups with various levels of vision defect a study was carried out, the aim of which was to assess the aesthetic movements of blind children and children with a partial loss of vision aged 6-15 years and to compare it to the fitness of healthy children.

Methods
Participants: 145 children with visual impairment, aged 7 to 15 years, were included in the assessment project, and control group consisted of 310 primary school children of the same age. The study group was divided into two groups, blind children and children with a partial loss of vision, which were further divided by age and sex. Only children who did not have any contraindications for physical exercise from ophthalmological point of view took part in the study. In individual tests the following aesthetic features were tested: precision, rhythm, lightness, tempo, harmony, dynamics, advisability

Results and a discussion
Clear differences can be seen in executions of aesthetical features related to the level of visual impairment. In both groups (with visual impairment - without visual impairment) was the very different distribution of the percentage of mean values. This can be assumed that the level of the aesthetics of the movement is determined a greater extent by a vision defect and to a smaller extent by age.
The study showed, the greater the vision organ defect, the greater developmental deficiencies in terms of aesthetic movements. On the basis of the analysis of the results it can be said that in blind children and in children with a partial loss of vision the general level of aesthetic movements is lower than in the group of their contemporaries.

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LIFE STYLE AND ENVIRONMENTAL FACTORS AFFECTING THE RELATION ROMANY MINORITY TO SPORT AND MOVING ACTIVITIES

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Introduction
The presentation focuses on the issues of movement activities among Romany minority population in relation to their life style. There are limited sources related to this topic. We describe historical backgrounds and curent situation and we also highlight the possibilities of positive influence of movement activities on this population.

Research methods
The paper is based on the review of literature related to Romany and ethnical minorities in general. We have also studied relevant literature from the area of physical education, sport and recreation.

Issues
In history we can find multiple factors which shaped lives and life style of this minority. We argue that appropriately structured movement activities can play crucial role in facilitation of socialisation and inclusion in mainstream society. Frequent movement activities have also positive influence on overall health and well being. (Trost, Pate, Saunders R, a kol., 1997; Freedson, 1991).

Results and discussion
We argue that only optional and free behaviors can facilitate the improvement of issues related to some issues of socialization of Romany in Czech society. In movement activities we use certain principles that resonate with the values and characteristics of Romany. In this presentation we focus on the environmental factors influencing Romany in relation to movement activities. We argue that it is crucial to not use „traditional“ sport based and performance driven activities (e.g. physical education), but we should use more holistic approach to physical activities based on the social-personality development models, which can facilitate inclusion of ethnic minorities into mainstream society.

EUROPEAN INCLUSIVE PHYSICAL EDUCATION TRAINING (EIPET)

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Key words: Inclusion, Adapted physical education, Teacher training

The purpose of this poster presentation is to introduce the project European Inclusive Physical Education Training (EIPET; LLP/LdV/TOI/2007/IRL-502). The project aims to tackle difficulties that arise associated with the inclusion of people with disabilities into mainstream education; and associated current deficiencies in initial and continued physical education teacher training to deal with same. A functional map of the physical education teachers role will be developed and the knowledge competence and skills requirements of PE teachers given the rapidly changing work environments resulting from the aforementioned changes. The main aim is to adapt the model and modules of inclusive PE teacher training in ITTralee to the partner countries and beyond through dissemination and valorisations into the wider PE teacher training environment. We will be hosting an International Conference in Tralee in 2009 to launch our project results and resource pack.
Aims of the project:
(a) To transfer the innovative model at the Institute of Technology, Tralee, of teaching inclusive physical education to partner organisations in initial and continued vocational training, thus improving the quality and volume of cooperation between institutions in Europe.
(b) To critically examine and adapt the inclusive physical education training module in ITT with the guidance of internationally acclaimed partner organisations and associated APA network contacts.
(c) To progress towards the Education and Training work programme 2010 priority areas through; advancing peer learning activities, facilitating the development of innovative practices, promoting excellence and equal opportunities, enabling learning to cater for rapidly changing work environments, and enabling efficiency and equity in education and training systems.
(d) To empower teacher training providers and PE teachers with the knowledge, skills and competence to operate effectively in the work environment.
(e) To facilitate equity of opportunity in Physical Education for all.
(f) To develop a resource pack to accompany the model and modules and make it available for download from the project website or available on cd.

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POSTURAL CONTROL IMPROVEMENTS AFTER A 20 WEEKS TRICYCLE PROGRAM IN CHILDREN WITH CEREBRAL PALSY

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Key words: Cerebral palsy, posture, tricycle.

Introduction

Children with cerebral palsy (CP) show spasticity of muscle and developmental disorders of movements and posture [1]. Tricyclism is an adapted physical activity that could improve functional ability in CP. The issue of this study was to show improvement of postural control after a tricycle program.

Research Methods

16 children (13.7±2.7 years) with CP (Hemiplegic, diplegic and quadriplegic) were included either in a control group (CG, n□8) or in a tricyclism group (TG, n□8) during 20 weeks. TG was trained 1h40min a week.

Subjects were asked to perform trials in normal quiet stance eyes open (EO) and with eyes closed (EC) at the beginning (T1), at 10 weeks (T2) and the end (T3). Postural sway parameters : Area (A), Velocity (V), Medio-lateral path (PML) and Antero-posterior path (PAP) were collected during 25.6s from a posturographic platform (SATEL). The differences between CG and TG groups and between EC and EO conditions were identified by paired Wilcoxon test. The P level of significance was set at 0.05.

Results

No significant differences are reported between CG and TG in T1. In CG, a significant decrease of A is reported between T2/T3 in EC condition. In TG, an increase is reported for A (T1/T2) and decreases are reported for PML, PAP, V (T2/T3) in EO condition ($P<0.05$).

		CG			TG		
		T1	T2	T3	T1	T2	T3
AREA	EO	727,2±461,8	686,0±628,9	617,3±347,4	632,6±390,9	1270,4*±687,3	818,7±636,7
(mm^2)	EC	1195,8±1173,8	1343,3±1197,5	747,9±693,6 *	1701,1±2313,9	1466,7±972,3	876,9±815,3
P_{ML}	EO	269,6±133,7	284,3±168,7	256,0±126,9	272,0±156,1	439,8±246,8	239,7*±99,1
(mm)	EC	341,5±292,4	347,7±224,8	279,3±183,9	336,7±251,3	468,9±280,7	241,2±92,4
P_{AP}	EO	289,6±148,3	288,7±139,5	302,2±152,4	240,2±96,8	297,3±79,3	211,6*±70,9
(mm)	EC	393,1±317,8	368,8±219,7	313,9±204,6	329,6±216,6	315,6±88,7	243,3±115,0
Velocity	EO	15,0±7,8	14,9±9,1	14,7±7,7	13,3±6,8	20,3±9,2	11,7*±4,9
($cm.s^{-1}$)	EC	19,2±15,8	18,9±12,4	15,7±11,1	17,9±13,4	21,6±10,4	12,3±6,2

Discussion

As previously describe, postural parameters recorded in CP are more important than those reported in typically developmental children [2]. The decrease in postural parameters after 20 weeks of tricyclism shows an improvement of postural control in EO. This confirm that tricyclism involve postural system in turns and in the phases of acceleration and deceleration. We hypothesize that the improvement shown here in CP might be caused by the increased stimulation of foot sole on the pedals and increased activity of the ankle muscles during exercise.

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THE ROLE OF THE COACH IN THE INTERVENTION PROGRAMS ABOUT PHYSICAL ACTIVITIES ADDRESSED TO THE ELDER PEOPLE: AN EXAMPLE IN A RESIDENTIAL HOUSE

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Key words: physical activity, older people, coach.

The rapid increase of older people in the population, and particularly of those older than 75-80 years and with physical or psychosocial disabilities, represents a significant challenge for the whole society and especially for health services. In order to promote the well-being of senior citizens it is necessary to individualize efficient intervention programs; these interventions should also be inexpensive and easy to implement. Senior citizens who engage in regular, moderate physical activity are more likely to maintain satisfactory physical and psychological health, personal interest in life and good social relationships. Successful programs aimed at increasing the physical activity of older adults appear to have positive effects through increasing self-efficacy and the enhancing the ability to successfully master activities of daily living. However, little is known about the role of coaches in these intervention efforts. Little research has explored the role of the coach in physical activity programs, especially those targeting older adults. The present study, which is part of a larger research project, was aimed at evaluating the effectiveness of an aerobic intervention for older people (N = 20, all of them were independent, the mean age is about 84 yrs) on their self-efficacy and quality of participation and social relationships. The intervention was administered by coaches (N= 6 coaches; the mean age was about 24 yrs; they were all trained at S.U.I.S.M), who worked in 2 groups with a different modality (group 1 had a central coach; in group 2 the coaches shared leadership). We administered a questionnaire at pre-test and post-test to the seniors and coaches and we observed the behaviours of the coaches and of the seniors during activity (on site and with video-registration) using a check-list. The main results (we used non parametric statistical techniques) showed that: a) self-efficacy of the seniors in both groups increased between pre and post-test; b) coaches had an increased sense of professionalism between the first and the final sessions of the intervention; c) seniors preferred the modality with a central coach; and d) the coaches preferred an equal distribution of responsibility among them. These results underline the importance of good training of the coaches and of careful planning of the physical activity programs addressed to seniors.

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THE TEACHERS OF PHYSICAL EDUCATION PERFORMANCE INSIDE OF THE INCLUSIVE PERSPECTIVE

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Key words: Inclusive Physical Education, Pedagogical Practice, Teacher's performance, Conception of Inclusion.

In perspective of inclusive education, every child has abilities and individual needs and also has the right to an education that respects these special characteristics. For a long time now, physical education professionals are discussing the matter of inclusion of students with special educational needs inside of the regular class where activities can be developed in a diversified atmosphere. Starting from this premise, the present investigation tries to analyze physical education teachers' performance in inclusive classes, considering the following aspects: the concept of inclusion, the professional development of the teacher, the student's situation with his/her deficiency in physical education class, the methodological strategies utilized, possible obstacles found in the development of the inclusive pedagogical practice and the relationship between teacher and student. For this investigation, qualitative research has been used with the participation of seven teachers of physical education that work with inclusive classes in private schools of early childhood and elementary education in the city of Maceio-Alagoas-Brazil, during the year of 2006. We used the semi-structured interview for the collection of data. The results obtained show us that one of the biggest problems found was related to the lack of the professional's preparation causing a distorted vision of inclusion, of special education needs, and its importance for this group. The investigation also revealed the prejudice on the part of the students provoked, sometimes, for lack of knowledge about the special education needs. It was still indicated by the teachers that there were no pedagogical supports in their physical education classes and they told that most of the obstacles found concerns the discrimination of some professionals. It is essential for a larger commitment on the part of all those people inserted in the education context, of the competent authorities, of the schools, of the teachers, of the professionals, and of the parents. It is urgent to make a continuous and qualified education for these physical education teachers' that contemplates and respects the human diversity.

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ADAPTED PHYSICAL ACTIVITY: SWIMMING, FROM THEORY TO PRACTICE

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Key words: swimming, disabled, education.

Introduction
In the School of Physical Education at the Universidade Federal do Rio de Janeiro we deal with disabled children in partnership with the School Club Program of the Municipal Department of Education of Rio de Janeiro. The lessons are given in a semi-olympic pool, to a depth of 1,5 m, with no heating, in a class of 10 pupils, children and teenagers with multiple disabilities: Down Syndrome (2), autism (1), cerebral palsy (3), mental retardation and psychomotor retardation (2), Rett Syndrome (1) and Turner Syndrome (1). We use both the global and the analytic methods, having as main purposes: to experience a variety of movements both in and out of water; to take part in different activities aiming of making easier the learning of reading and writing as well as the accomplishment of daily task; collaborate with the process of socializing of the disabled pupils through the integration of them with those free from physical or mental disorders, university professors and future practitioners in activities in and outside water. We try to work out: equilibrium, propulsion and breathing, change of body positions, perception, inter-personal relationships (Burkhardt & Escobar, 1985).

Methodology
Open questions to be answered by the disabled children's parents due to the impossibility of these children answer them.

Results
In a class of 10 pupils, only five disabled children's parents answered the questions and in their opinion the **swimming lessons** are helping their children (100%), however, the affected areas informed are diverse: improvement in attention (40%), improvement in the socializing (80%), improvement in autonomy (80%), with regard to swimming specifically: 100% move themselves without help in the pool, while 40% of the pupils perform kicking without help and 100% with the help (of the teacher or of the swimming board), according to the parents.

Conclusion
Although the parents themselves have difficulty in answering the questions in writing (they had to have assistance of the teacher), probably because of being functionally illiterate, it is easy to identify that the activities developed with the children in the swimming pool are reflected in their daily routine, improving their life quality.

DEVELOPMENT OF BALANCE SKILLS OF SCHOOL-AGED CHILDREN AND ADOLESCENTS WITH VISUAL DISABILITIES

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Maintaining body balance plays a key role in development of motor abilities, physical fitness and special orientation in blind and visually impaired children. The aim of the study was to investigate the balance abilities of children with visual disability with respect of sex, age and degree of impairment and to evaluate the influence of participation in extracurricular sports activities on this component of the fitness.
A group of 190 boys and girls, aged 9 to 19 years, students at both special schools for visually impaired children in Bulgaria, were tested by measuring the time in sec. for balancing on one leg. The children were divided in groups with respect of the degree of visual impairment and of the level of physical activity. Ordinary statistics for describing variations were employed by calculation of means and standard deviations. Statistical significance between means was tested by Student's t-test.
The performance means of the two sexes were similar. The group of students with low or partial vision don't demonstrate significantly better body balance in comparison with the group of blind children. This is probably connected with the level of development of compensatory vestibular and proprioceptive mechanisms in children with different severity of visual impairments. The main changes observed in ability of maintaining balance coincided with the age of starting extracurricular sports activities and participation in sports competitions. In both sexes and in all age groups participation in additional sports activities (athletics, goal ball, judo, martial arts) results in significant improvement of balance abilities of visually impaired children and adolescents. The results of present study confirmed the high importance of adapted physical activity and sports for considerable compensation of visual loss-related delay in body balance development of visually disabled children and adolescents.

INTELLETTIVE SPORTS AND DISABILITY: REALITY AND EDUCATIONAL PERSPECTIVES OF SPECIAL OLYMPICS IN CAMPANIA

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Key words: Special Olympics Italy, intellective disability, training and competitions, scholastic institutions, school teams, sport unified.

Special Olympics is a recognized international organization from the International Olympic Committee that takes care of persons with intellective disability offering the opportunity to develop their sport physical and mental abilities through training and competitions. Special Olympics Italy is an Onlus recognized from the CONI like the Association itself, in which the Campania Team has been operating for three years with the objective to diffuse the associate-educational program through sports events and manifestations dedicated to the intellective disability, interacting with the University of Salerno and the group of researching on the disability MPI-ANSAS Campania. The Campania team in these years has promoted the sports practice for people with intellective disability operating in scholastic structures and rehabilitation centers and interacting and contributing to the spread of a culture that identifies the persons based on their state of health and not for the consequences of a pathology or of a whichever difficulty (WHO, 2001). the job of the team have previewed through the collection given on disability (ISTAT, CENSIS, local Plans of zone, Administrations) a mapping of the territory. The reading of the needs of the territory and the analysis of the data found in relation of the target of reference that has concurred to define the customary contours of the participation in information and formation activities for the teaching of students and parents, beyond the organization of an advising service, supported and coordinated for scholastic institutions and the conduction of motor activities and turned to students with intellective disabilities and the job has been accompanied constantly to a monitoring and searching activities. At the end of the three years from an exclusive participation of rehabilitative sports centers and associations has been involved beyond forty schools of the Campania region and it is arrived to the constitution of seven school teams they have joined to the program of Special Olympics for the development of sports participations for intellective disability people, thanks also to the plan of searching (MPI-IRRE Campania, 2006) of the Campania team. The experimental constitution of school teams opened also to parents and voluntary students, and also to propose itself as a modality in order to support the educational and didactic action of the teacher in the performance of plans of sport activities for the disability, it concurs to the spread of competitions to unified character, favoring the development of an integrational culture through the sport.

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MOTIVATION IN TENNIS COMPETITIONS BETWEEN WHEELCHAIR TENNIS PLAYERS AND STANDING TENNIS PLAYERS

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Key words: wheelchair tennis player, motivation factors, standing tennis players.

Introduction
The world of disability is generally characterized by little specialization and a lack of sports culture.
This study examines in detail the motivational factors of wheelchair tennis players vs. normal players using the Italian version of the Gill, Gross and Huddleston Participation Motivation Questionnaire.

Methods
Their relationship with the main enabling factors and the results obtained in terms of national and international ranking are investigated by means of the Pearson analysis. The studied population consists of 55 wheelchair tennis players (out of a total population of 105) and 42 normal tennis players.

Results and conclusion
Statistically relevant differences exist at the level of the motivational factors. In particular wheelchair tennis players appear to be much less status conscious than their standing colleagues (-18%). They give more importance to the factors “fun” (+4%) and “spending energy” (+4%).
For both the wheelchair tennis players and tennis players, the strongest relation is between the factors “fun” and “affiliation” (Pearson analysis 0,832 for the wheelchair tennis players and Pearson analysis 1 for the tennis players).
Striking is the apparent lack of relationship between athletic training and results in terms of ranking. Hence professional trainers, specialized in the world of disability, are required.

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RESEARCH AND DEVELOPMENTAL PROGRAM AT BEITOSTØLEN HEALTHSPORTS CENTRE

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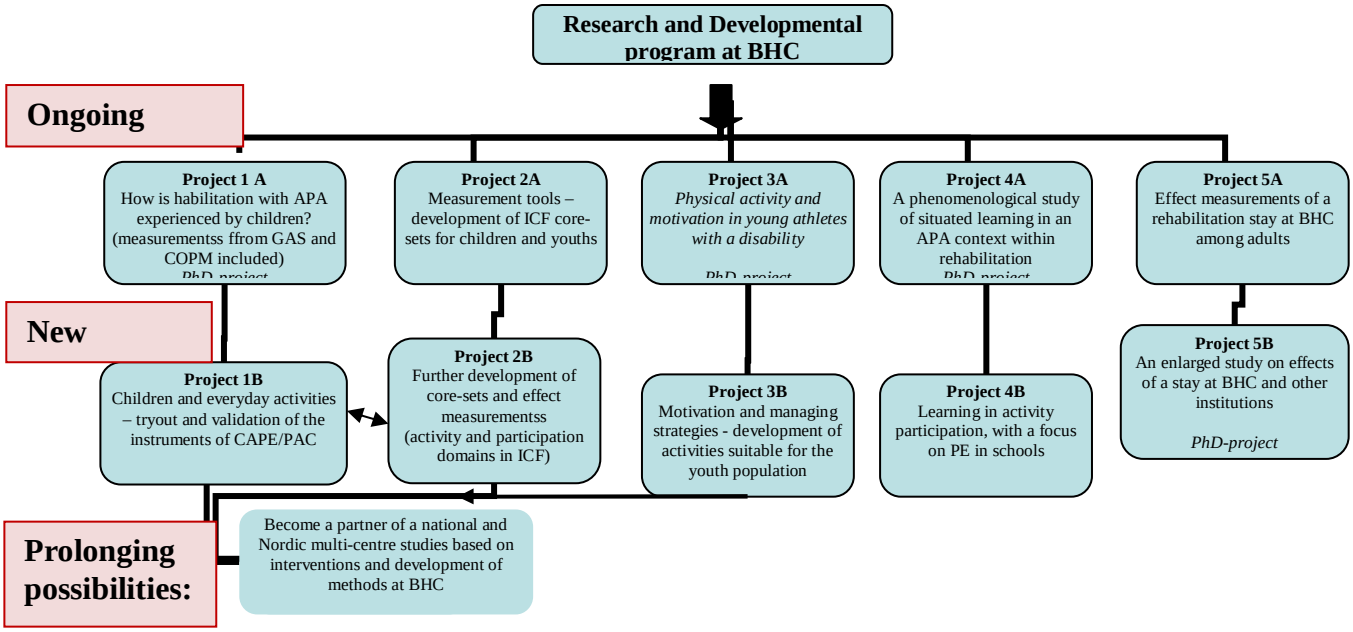
Key words: Adapted Physical Activity, Beitostølen Healthsports Center, Rehabilitation, Research.

Beitostølen Healthsports Centre (BHC) is a resource centre for re-habilitation, education and research, with APA as the primary service delivery and field of research. The centre is a national specialized rehabilitation institution within the official health service system in Norway. Embedded in the APA provisions are a unique pedagogical, medical and social cooperation directed towards the optimal goal of lifelong activity and participation in local environments for the users of the centre. It's an ambition of the centre to be in the front also in scientific documentation of processes and effects in the field of APA. Over the past few years this ambition has led to allocation of more resources to academic work in this field. As of today there are e.g. 4 doctoral students, funded by health authorities and foundations, working on projects at the centre. The projects are deeply rooted in practice at the centre and are cross-professional. All of these projects are carried out within the doctor program at Norwegian School of Sport Sciences. Further there are several developmental projects at different levels with different partner institutions and universities. This presentation will give an overview of recent and present R&D involvement at BHC. It reflects what is regarded as some of the most important developmental tasks in the field of APA at BHC, and even in Norway, due to the national responsibility of BHC in specialized rehabilitation end education by means of APA. One purpose of this presentation is to announce the comprehensive program, with its´ projects in progress and those who are planned. It may lead to fruitful international collaboration and/or exchange of information between specialists in the actual fields.
(See enclosed program overview)



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PHYSICAL ACTIVITIES AT CIRCUS AND AUTISM

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Key words: Autism, A.P.A., circus, stereotyped behaviours, alternatives appropriates behaviours.

Physical activity in the circus can be introduced among the different educative approaches in the area of Adapted Physical Activities (A.P.A.). This work aims at observing and verifying, whether this kind of activities can reduce the «Restricted repetitive and stereotyped patterns of behaviour, interests and activities» in a thirteen-year-old boy with autism. The intervention, developed in a period of four months, with a weekly frequency for one hour thirty minutes each lesson, took place in a circus during the course directed to « normal » teenagers. Three ways to check A.P.A.'s effects: (1)observation, by means of video about activities, is made comparing the number of stereotyped behaviours presented during the activity: in the beginning and in the end of the programme (individuation and counting of stereotyped behaviours presented during the activities); (2) a taxonomy in different levels for each exercise, to evaluate abilities learnt in the end of programme; (3) a questionnaire, given to the family to determine more changes. After the end of activities' programme, and appropriate adaptations, we verified: a 56% reduction of stereotyped and inappropriate behaviours during activities; learning of new motor skills: in balance's activities reaching fourth level for wire and second level with globe, in juggling reaching fifth level with the balls and the second with clubs; greater opening of interests' and activities' field of the teenager, due to the learning of alternative behaviours and to the big variety of activities that circus proposes, checked by the questionnaire submitted. Future research needs to be engaged with a larger number of cases.

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CARA ADAPTED PHYSICAL ACTIVITY CENTRE: A COORDINATED APPROACH TO ADAPTED PHYSICAL ACTIVITY IN IRELAND

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Background

In 2003 and 2005, The Institute of Technology Tralee, supported by the Irish Sports Council organised the first two National Adapted Physical Activity Conferences to be held in Ireland. These conferences highlighted three main issues.

(1) The low levels of participation among people with disabilities in sport and physical activity.

(2) The lack of information throughout Ireland regarding sport and physical activity opportunities available to individuals with disabilities.

(3) The lack of awareness within sporting and disability organisations with regards to the needs of people with disabilities.

Following the 2005 Adapted Physical Activity conference 'Getting it Right-Including People with Disabilities', a report by the National Disability Authority 'Promoting the Participation of People with Disabilities in Physical Activity and Sport in Ireland' indicated the urgent need for a coordinated approach to accelerate progress in achieving access, inclusion and quality participation in sport and physical activity. In November 2007, supported by the Irish Sports Council and the Institute of Technology Tralee, the CARA Adapted Physical Activity Centre was established

The CARA Adapted Physical Activity Centre:

The main aim of the CARA APA Centre is to facilitate an increase in the number of people with disabilities participating in sport and physical activity, through increasing opportunities to participate, improving access, providing information on and organising/delivering training.

Additionally the CARA APA Centre will undertake and coordinate research, support APA developments at third level institutions and assist in the developments of both local and national sport and physical activity strategies. To enable the CARA APA Centre achieve its main aim the following objectives were developed. (1) To coordinate and support the work of 21 Sports Inclusion Disability Officers (SIDOs) throughout Ireland and (2) To develop as a National Resource Centre working in partnership with Local Sports Partnerships, National Governing Bodies, Disability Organisations, National Disability Authority, Schools, International links and other relevant sporting organisations. The role of the SIDO within the partnership structure is to promote greater sport and physical activity participation for people with disabilities. National SIDO objectives have been developed by the CARA Centre, these include, establishing new clubs/sessions, supporting existing clubs, providing infomation and advice on disability sport, organising and delivering education and training courses, improving access and supporting the developments of a local strategy on sports and physical activity for individuals with disabilities.Through effective working partnerships with key stakeholders, the CARA Adapted Physical Activity Centre has began to develop a national framework that will make full participation in sport and physical activity for people with disabilities a reality rather than an aspiration.

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THE MODEL OF PROFESSIONAL TRAINING IN ADAPTED PHYSICAL ACTIVITY AT NATIONAL SPORTS ACADEMY

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Key words: adapted physical activity, professional training , program.

Introduction
The National Sports Academy is the unique University in Bulgaria in the area of Physical Education, Sport, Recreation and Physiotherapy. It has been integrated to the higher education policy of the European countries and follows the modern tendencies in the area of physical education, physiotherapy, adapted physical activity and sport. The Master's degree of education was established in 1998.

The aim of the paper is to present the Bulgarian model of professional training in adapted physical activity and sport for disabled people at National Sports Academy**.**

Methodology
In 2003-2004 educational year was approved a specialization in Adapted Physical Activity and Sport at school at The Faculty of Kinesitherapy, Tourism and Sports Animation. It was included in the Master's program "Sport for high achievements". The Master's program in Adapted Physical Activity and Sport was established as a separate part of the Master's degree of education in National Sports Academy in 2004.
Program training and educational process extend the fundamental theoretic and methodic knowledge, practical skills and abilities in Adapted Physical Activity and sport. The curriculum is based on 60 ECTS in two semesters and includes seven subject fields:
1. Obligatory theoretical modules - 9 credits
2. Obligatory special modules - 17 credits
3. Elective Modules - 6 credits
4. Teaching practice with examination lesson – 8 credits
5. Water course - 5 credits
6. Facultative modules
7. Preparation and defense of graduation work -15 credits

Results
In these 4 years from the beginning of the Master's program in Adapted Physical Activity and Sport in National Sports Academy took part a lot of Bulgarian and foreign students especially from Cyprus, Greece, Turkey, Macedonia, Albania ecc.

Conclusion
The best positive aspect in the Master's program in National Sports Academy is the integration of the theory and the practices.

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SECONDARY SCHOOL PHYSICAL EDUCATION TEACHERS' ATTITUDES TOWARD CHILDREN WITH INTELLECTUAL DISABILITY

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Key words: Physical Education Teachers, Attitudes, Children with Intellectual Disability.

Introduction
In many countries, the trend toward increased integration of children with and without disabilities can be observed (Lienert , Sherrill, & Myers, 2001). Although inclusion practices in Turkey started in the early 1980s, they have had legal ground since 1997 with Act Number 573(Küçüker, Acarlar, & Kapci, 2006). There is no study on physical education (PE) teachers' attitude toward children with intellectual disabilities (ID) in Turkey. However, attitudes constitute an important determinant of behaviour in educational setting. With this in mind, a sound theoretical foundation of attitude research is important so that educational practice such as inclusive physical education can be explained and controlled (Tripp& Sherrill, 1991). So, the aim of this study was to investigate PE teachers' attitudes toward children with ID in the secondary school.

Research methods
Data were gathered by a survey method. A 39-item 'Teachers Attitudes Toward Children with Intellectual Disabilities Scale ' (TACIDS) with a 5 point Likert was applied to 746 (530 men, 216 women) secondary school physical educators who determined by random in seven different geographical areas in Turkey.

Statistics
Principal component factor analysis with oblique VARIMAX rotations was used to analyse the scale structure following by a reliability analysis. The impact of the demographic attributes on seven factors of the scale was measured by means of independent sample test and one-way ANOVA with *post hoc* test.

Results
Factor analysis found seven factors accounting for % 58,3 of variance. Reliability analysis (Cronbach's α) followed each factor. The Cronbach alpha coefficient was found to be . 87 for Factor 1, .82 for Factor 2, .62 for Factor, . 65 for Factor 4, .59 for Factor 5, .62 for Factor 6, and .47 for Factor 7. Total internal consistency was found (Cronbach's α= .84). The statistical analysis revealed significant effects on attitudes to age ($F_{(7,737)}$=2,244, p=.029) and employment period($F_{(6,738)}$=4,630, p=.000) in Factor 2 , maritial status in Factor 2 (t=3.065, p=.002), Factor 3 (t=2.195, p=.029), Factor 4 (t=1.991, p=.047), Factor 5(t=3.572, p=.000), Factor 7 (t=1.988, p=.047) , having acquaintance with ID in Factor 1(t=2.572, p=.010) and in Factor 2 (t=2.400, p=.017). There was no significant difference in terms of sex and previous experience in the seven factors of scale. The results provide evidence that PE teachers having longer employment period need in-service training to promote positive attitudes toward teaching children with ID.

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OUTRIGGER CANOE... WINNING ISN'T THE POINT. GETTING YOUR LIFE BACK IS.

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"It's a clear, sunny day. A group of paddlers are an outrigger canoe. Watching them paddle up and down the shoreline in almost perfect unison shows that a book truly can never be judged by its cover, because some member of the crew has a physically disability. You'd never know from standing on the beach", You don't see a team of adaptive paddlers. You see a team of highly skilled athletes".
Italy discover the outrigger canoe (called va'a) only on the year 1999 and thanks to the Italian team the International Va'a Federation (IVF) have included adaptive events in the 2004 World Sprints and the sport is growing in popularity amongst adaptive paddling athletes and more outrigger canoe paddling is a sport accessible to all as people/athlete with a wide range of disabilities can participate in the same canoe and/or race as paddlers without disabilities.
The speach will explain the story and the experience of a group of people not all athlete some with disabilities and other without that has decide to get their life back sitting in an outrigger canoe and going to the World Sprint Championship and more the use of the outrigger to improving the quality of life, the biological environment, self-esteem and integration.

DIRECT AND ON-COURT MEASUREMENT OF MAXIMAL AEROBIC PERFORMANCE OF ELITE WHEELCHAIR BASKETBALL PLAYERS

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Key words: Field test, oxygen uptake, wheelchair.

Introduction

Aerobic performance assessment is today one of the main tool in adapted sports for health evaluation and players´ performance follow-up, and even, for reference profiles determination. Wheelchair Basketball (WB) is a world-famous adapted sport, but there are not investigations about direct measurement of aerobic power in the same sport context.

Issue

The aim of this study was to measure maximal physiological parameters and estimating ventilatory thresholds of high performance WB players, in order to characterize their aerobic physical condition and to offer reference profiles according to type of functional classification (FC) and gender.

Methods

As part of their seasonal physical evaluation, 4 players (3 men and 1 woman: 33.75±2.63 years; 171.75±11.09 cm; 66.45±19.39 kg; 2.0±0.9 FC) from one elite WB team underwent a continuous, incremental shuttle run field test until exhaustion (Pérez 2003, adapted from Léger & Lambert's 1982) in two different moments (October and February). The test protocol started at 6 km/h increasing 0,5 km/h minute along the 28m basketball court length. Players used their own sport-wheelchair. A portable telemetric system (Oxycon Jaeger®) was used for physiological data collection along the test.

Results

For moment 1 data collected were: VO_2max 2511,8±667.6 ml/min, HRmax 184.3±8.5 b/min, percentages for aerobic (VT1) and anaerobic (VT2) thresholds regarding VO_2max were 62±9.3% and 82.8±5%, respectively, distance 1729±470m and total test time 11´58´´±2´28´´. For moment 2 data collected were: VO_2max 2556,8±749.5 ml/min, HRmax 187.3±6.2 b/min, percentages for aerobic (VT1) and anaerobic (VT2) thresholds regarding VO_2max were 56.8±15.6% and 74.3±13.9%, respectively, distance 2156±544.4m and total test time 13´57´´±2´45´´. For all test maximal criteria for aerobic power maximal test were achieved. A good relationship was found between player's FC and VO_2max (Spearman, $r=0.68$; $p=0.06$) and VO_2max shown a strong correlation with distance covered (Pearson, $r=0.73$; $p<0.05$).

Discussion

In our knowledge, there are no previous studies about aerobic performance measured directly in the WB court, apart from Bernardi (1999), who measured directly cardiorrespiratory data in an organised game. Data are similar to those how estimated VO2max from laboratory test in this population (Goosey-Tolfrey et al., 2008, 2005; Vanlandewijck et al., 1999).

Conclusion

The test is suitable for measuring the maximum aerobic power of WB players in the sport context. More samples are needed in order to offer players' profiles related FC.

Financing

Research project granted from Spanish Ministry of Science and Education (DEP2006-28535-E code).

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CONDUCTIVE EDUCATION AND LEISURE TIME EXERCISE ACTIVITIES IN THE PETO INSTITUTE

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Key words: central nervous system disorders, conductive education, PE, Wii- therapy, physical endurance, perseverance.

Conductive education, also called as the Pető-method is a scientific method developed fifty years ago to improve the motor functions of those with central nervous system disorders. Although few publications have appeared about it, it is still a scientific discipline recognized worldwide. The objective is complex development of the personality, with a view to the development of learning abilities, learning to conduct an active life and development of a personality capable of problem solving. All this can be realized if the child is managed in a social peer-group under the care of a conductor, who "conducts" the work through facilitation, while small-group development activities are also provided.

More and more orthopedic complaints emerge age. These are accompanied by incorrect posture and obesity due to anatomic changes accruing in adolescence. Attention is paid in the complex daily routine of children at the Peto Institute to learning the different modes required to change posture and place, which they do by practicing sequences developed specifically according to their individual needs. Beside motor development integrated into the daily routine, sport exercise as a form of leisure activity plays an important role in developing the basic skills of special need children.

Students at the Pető Training School have weekly regular opportunities to taste the excitement of exercise and sports. Monitored by the school principal, two PE teachers and conductors, the children spend one hour moving, exercising every part of their body that moves, in a standing, sitting or prone position. Maintaining and developing body fitness is done using the basics of gymnastics, athletics and ball games, always with consideration of age characteristics.

Our children have a great desire for exercise. When we cannot make it to the gym, we have them play sports with the Nintendo Wii Sports console that they could never play before. Among the first in Europe, we have the handicapped play tennis, golf, bowling, baseball and boxing individually, in pairs or in a team.

Sports activities have a motivating effect on the lives of these children, because it makes exercise realistic and playful. The experience is something that they have not known before, something that allows them in yet another area to live a life similar to that of their peers. They no longer look on sports with distrust, competition and the importance of team spirit gains a positive attitude.

Our presentation also contains a film about our work.

A COMPARATIVE STUDY ON SOCIAL MATURITY OF HANDICAPPED ATHLETES AND OTHER ATHLETES IN HAMEDAN , I.R. IRAN

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Key words: social maturity, personal competence, interpersonal competence, social competence, handicapped athletes.

The social maturity refers to the mellowness of personal , interpersonal and social skills. So , the main goal of this research is to compare the social maturity between handicapped athletes and other athletes in Hamedan . In order to attain this goal , a number of 70 handicapped athletes who had participated in Iranian Sport Olympiad in 2007 have been selected by using random sampling . Also , a number of 70 handicapped non–athletes who had the same characteristics as handicapped athletes in sex , age , stature , and weight have been selected . By using Raow social maturation scale , the rate of their social maturity has been evaluated and the data have been analyzed according to three dimensions of personal , interpersonal , and social competence . The formal validity of this scale has been proved by specialists in psychology . Through a preliminary studies , the reliability coefficient has been calculated according to Cronbachs Alpha Method . The results were as follows : 0/73 for whole scale , 0/74 for any dimension of personal competence , 0/73 for interpersonal competence , and 0/71 for social competence. In order to analyze the data , the statistical t-tests have been used for independent group , one–way between group , ANOVA , one –factor within subjects , ANOVA , Mauchlys test of sphericity . Also , in order to determine the normality of data distribution , the Kolmogorov–Smirnov test has been used , and the Leven statistics has been used for determining the coherence of variance among groups . In this field , the SPSS has been used for analyzing the data . The results of t–test for independent groups showed that the average of handicapped athletes' social maturity was significantly more than handicapped non–athletes' one ($p < \% 1$). Also , in the triple dimensions of social maturity , the results showed that the average of handicapped athletes' personal competence , interpersonal competence , and social competence was significantly more than handicapped non–athletes' ones ($p<\%1$) Meanwhile , the results showed that among handicapped athletes , the average of individual athletes' personal competence was more than of group athletes' one , and the average of group athletes' social competence was more than of individual athletes' one ($p<\%1$). Therefore , one can conclude that the orderly participation in sport activities not only have influences on handicapped athletes' social maturity , but also the kind of sport activities (individual – collective) has influences on the training of a particular dimension of social maturity. As a result , the individual sports lead often to training of personal competence while the group sports often provide the training of social competence .

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THE EFFECT OF IRON AND ZINC DIETARY RESTRICTION OF PREGNANT RATS ON PHYSICAL GROWTH OF LITTERS

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Evidence suggests that micronutrient deficiencies may be associated with problems in early growth. Iron (Fe) and Zinc (Zn) deficiency (D) are prevalent during gestation in low–income countries. For pregnant dams, adequate amount of these micronutrients are needed in the diet to ensure the capacity for increased physical growth. In this study the role of Fe and Zn dietary restriction of pregnant rats on physical growth of litters was investigated. Pregnant rats after to mating were divided to three groups. Control group fed a standard diet and a FeD group fed a diet deficient in Fe and a ZnD group fed a diet deficient in Zn .All the diets exposed during the last third of pregnancy.

The results showed serum Fe and Zn concentration after to exert dietary as compared before to exert dietary in FeD and ZnD groups was significant. There was significant difference in physical growth indexes (body weight, body length, tail length, and head length) between FeD and ZnD groups as compared to Control group, but was not seen significant difference in head width and brain weight between FeD and ZnD groups as compared Control group. The results of this study suggest that adequate Fe and Zn affect on physical growth of litters.

ADAPTED PHYSICAL ACTIVITY IN A NURSING HOME FOR PEOPLE SUFFERING FROM PSYCHIATRIC DISEASES

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Key words: Adapted physical activity; psychiatric diseases; physical abilities; quality of life.

Regular, soft and adapted physical activity (A.P.A.) can contrast the progression of disability and can improve quality of life, as long as possible. A.P.A. is defined as "the whole physical experiences motivated from therapy, rehabilitation, education, recreation or competition" (De Pauw, 2000). We discuss and present an experience of A.P.A. carried out in a Nursing Home for people suffering from psychiatric diseases. The general purpose of this experience was to improve personal autonomy and well-being, reducing psycho-physical frailty for participants. Different types of physical proposals were used to stimulate articulation mobility, perception, balance, muscle flexibility, strength and coordination. Inspired to 'soft gymnastics', the way of execution of the A.P.A. program was always adapted to the group and to the subject. We examined 13 subjects (F=13), with a clinical diagnosis (54%) or a probable presence (46%) of Dementia of the Alzheimer Type (DAT), whose age varies from 74 to 95 years (medium age: 86 years old). Subjects participated to an highly adapted and subjectively modulated physical activity program twice a week for 12 months. Longitudinal analysis was conducted to evaluate some physical abilities and functionalities. A *Physical Balance Test* measured segmental and global flexibility, balance and strength. The *Timed Up and Go Test* estimated physical performance in relation to balance, strength and endurance. *Barthel Index*, *Activities Daily Living* and *Instrumental Activities Daily Living* were administered to measure functionalities and autonomy. The *Vineland Adaptive Behavior Scales* evaluated three psycho-social factors: communication competences, day-life abilities and socialization. Analysis of variance for repeated measures within subjects were conducted to verify the presence of significant differences between measures identified across time from t_0 (baseline, 2007) and t_1 (2008). Significant differences were found related to global strength and global flexibility that increase, while balance decreases. Results show how this A.P.A. program have helped to keep stable the functional state and to prevent physical aggravation for such frail participants. From this study important suggestions come out, supplying information to develop this A.P.A. program and the theoretical debate on this field (Jeffrey and Cummings, 1997; Hazzard et al., 1994).

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HOW THE DESIGNED EDUCATION ALLOWS AUTISIC PEOPLE TO CARRY ON PHYSICAL TRAINING WITH THE PURPOSE OF INTRODUCING THEMSELVES

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The designed education

The general purpose is to help autistic people to get over the relations uneasiness in order to encourage the autonomy bringhing to their introduction and integration.

The anticipated performances are understood in terms of activity organically structured with partner-pedagogic finality, partner-rehabilitative, partner-educational and of expansion of the attitudes to the social integration, you insert online with interventions multi-disciplinary of other corporate body or institutions.

We have individualized 5 integrated areas:

Area of partner-rehabilitation

Area of the social integration

Area of the educational trial

Area of the formation and training finalized to creative and occupational activity

Area of the interdisciplinary integration

The project of motor activity is inserted in the project of education structured with objective contemplated to the attainment of the finalities above you quote.

According to the project, every individual learns to know his/her own body, little by little in the action, to physical layer, mental and record and to use him/it in operation of the stimuli of the surrounding environment. He gradually takes conscience of the power that can practice on himself, it inhibits his/her movements, it his/her pulsionis, it directs and it checks his/her gestures, it becomes available to listen and to fix his/her attention to focus himself/herself/themselves on an activity.

The project of motor activity founds him on a methodology that favors the passage from the concrete level of the lived body, to the abstract level of the mental image, through a series of passages contemplated to the acquire re-acquire of the various intermediary levels of objectives.

Aims

The body: to get conscious of the lived and known body.

The movement: to get conscious of the movement and its temporal-space structuralization (voluntary action)

Introduction/ integration: to get relations with other people in a normal context.

Methodologies

Time planning by the use of a diary following the approach TEACCH and P.C.S. (augmentative and alternative communication).

Results

- better integration in the knowledge of body description
- Increase of the co-ordination ability
- Better litheness of movements
- More ability in controlling and aiming the movement
- Better ability in understanding and carriing out an order
- Development of skill in under standing a learning in a sheltered place from an exterior place (athletics round)
- possibility of introduction in a normal situation together with other athletes of the ground where the activity is carried on

BRAZIL: THE SESC SYMPOSIUM ON ADAPTED PHYSICAL ACTIVITIES AND ITS CONTRIBUTION TO THE AREA

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Introduction

SESC has tried during its history to promote social welfare not only for its priority public but also for the whole community. Therefore, it develops works in areas known for its significance and assumes a social-cultural project whose actions and results aims at the incorporation by individuals of virtues and values of citizenship. Adopting these guidelines widely the SESC unit in the city of São Carlos (SP), which has a natural vocation due to the absence of architectural barriers and with a technical expert in the area, develops a work along with people with disabilities. Within this principle, actions are taken that enable the proposal to offer the public diverse activities (physical, recreational, cultural, sports and competition).

It also seeks to disseminate existing knowledge in the area. Therefore, it was proposed to hold the SESC SYMPOSIUM ON ADAPTED PHYSICAL ACTIVITY (1997) which aims to encourage the scientific technical development of this area and allows a discussion in the community on issues related to persons with disabilities and special needs; it also presents as a differential the fact that this discussion is held in a private entity which is not connected to universities.

Methodology: This symposium holds conferences, courses (theoretical / practical), experiences (practical), reports of experience (with organizations working in the area), poster sessions, cultural and sports activities (with the disabled).

It presents as a result, the participation of more than 5,000 people from many cities of several Brazilian states and other countries, along with the most important teachers (national and international) and professionals with a reputation related to the areas of arts, sports and representative associations.

It was concluded that the event has reached a great scope and has contributed to the dissemination of information to a specific audience, students in physical education and the like, teachers who work in the area, in addition to the community in general, thus contributing, through more appropriate social attitudes for the improvement of the quality of life of people with disabilities and special needs.

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MINISYMPOSIUM

MODELLING THE HUMAN-HORSE INTERACTION CAN HELP UNDERSTANDING THE EFFECTS OF HORSEBACK RIDING THERAPY

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Introduction

One of the requisites for understanding the effects of the horseback riding therapy is to analyse the features of the movement and to quantify the mechanical stimuli that affect the rider as a consequence of its interaction with the horse. Actually some interaction forces and moments develop along the saddle, the horse belly, the stapes. The resultant of these forces and moments are related to the acceleration of the upper body parts, and can be estimated through the analysis of the linear and angular accelerations of the rider's body segments.

Based on these considerations, a biomechanical model has been developed which allows us to quantify the resultant forces and moments in the human-horse interaction and their effect at the lumbar and cervical spine level.

Method

Data acquisition was performed in a riding school (Maneggio AVRES-ONLUS di Nus, Val d'Aosta) by an arrangement of 10 TV cameras in two parallel lines about 6 m apart each other and 12 m long. The horse with the rider went jogging along the sides of the riding school and eventually passed through the sets of TV camera. A motion analyser (Smart System, BTS, Italy) processed the images by allowing us to obtain the trajectories of reflective markers located on the subject and on the horse in proper locations. The obtained kinematic variables were used to animate a biomechanical model of the rider. The pelvis was defined in space by the six free coordinates corresponding to three displacement vectors and three rotation angles. Because of its dynamic coupling with the upper body segments, the forces and moments associated to its linear and angular accelerations were calculated.

Results and conclusions

After preliminary application of the method our results show that the different paces of the horses can dramatically change the time course and the frequency of the mechanical stimuli applied to the rider. The size and attitude of the horse can also have an effect, as they change the amplitude and frequency of the movement. Through our mechanical model it was possible to simulate the stiffness at the lumbar and neck level due to muscles involved in keeping the proper posture. From this point of view, within the limits of the simplifications adopted, our modelling approach seems to be a useful tool to understand the properties of the motor control mechanisms and to improve the rehabilitation programs.

HIPPOTHERAPY USE AS A REHABILITATION TOOL FOR USERS WITH SCI AT BEITOSTOLEN HEALTH SPORTS CENTRE

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Key Words: Spinal cord injuries, Hippotherapy, and Exercise.

Beitostolen health sports centre (BHSS) is recognized as an official part of the national specialist health service system providing rehabilitation services in Norway . The users are admitted to the centre by application from a medical doctor, a rehabilitation team, special pedagogues or any other educational or rehabilitation professional. The users are usually involved in health sports activities designed to improve physical abilities and foster higher levels of mental, physical, and spiritual well being. The objective of the study was to explore and evaluate the effects of the hippotherapy program on users with spinal cord injuries (SCI) at BHSS with a keen interest in the aims and objectives for the users. The research questions addressed issues such as, the specific aim of the program for each user, reasons for only 3 users for hippotherapy, whether the different lesion levels determined the individuals program, the specific horse movement gaits applied or used, the outcome of the program whether beneficial or not, indications and contraindications for the users. The study was based on a case study approach with purposeful sampling, the data was derived from interviews, and observations which were later corroborated with the existing literature about SCI users and hippotherapy effects. Linkert scale of 5 was used to find out the effectiveness of the centre to the users objectives. There were a total of 13 users with different levels of SCI lesions but only 3 did therapeutic horse riding. The horseback riding program was done at least twice per week either indoors or outdoors. Each session lasted 30 minutes. The users were instructed on how to control the horse initially using the miens then later using their body limbs. By the end of the 3rd week the users were able to use their lower limb muscles to stop, start, change direction or speed of the horse which indicated a marked improvement either in their muscle trophia, tone or strength. All of them rated the program as extremely good on a linkert scale of 5.They also confirmed that they had achieved some of their objectives and goals e.g. pain relieve, improved endurance capacity, strong muscles and being able to do sit-ski for 2km. The general opinion gathered is that the program is good and is worth emulating by all people who believes in equality in terms of human rights and opportunities for everybody. However there is very little objective evidence in the research literature and therefore there is need for evidence based practice at BHSS by conducting objective tests and measurements. If all this activities is to command respect in the field of medicine, rehabilitation and education then more empirical studies need to be undertaken (DePauw, 1986).There was need for a psychiatrist at the centre among the multidisciplinary personnel at the centre.

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A MOVEMENT ANALYSIS APPROACH TO ANALYSE THE ACTION MECHANISMS OF HORSEBACK RIDING THERAPY

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Introduction

Horseback riding therapy seems to work very effectively on several pathological situations on condition that patients are carefully selected and therapy programs are well structured and personalised (Pauw, 2000; Hammer et al., 2005). The emotional and psychological aspects are probably among the fundamental factors of such an effect, although many different sensory systems are simultaneously stimulated: visual, vestibular, somesthetic, proprioceptive. A thorough biomechanical analysis can help understanding the involvement of these systems and their action mechanism in the horseback riding therapy. Our first approach was to analyse the movement in a movement analysis laboratory. The same approach is then to be used in a real situation during trials performed in a riding school.

Method

The riders sat on a saddle that was mounted on a fixed quadripode. They were asked to assume a similar posture as the one they used in real riding, and to flex-extend the hips and knees according to the different horse paces: walk, trot, gallop. Four subjects were skilled horse riders, exempt of any history of motor disease. Two other subjects were very acquainted with horse riding, but affected by different motor diseases. A motion analyser composed of six TV-cameras located around the subject and connected to a TV-image processor (Smart System, BTS, Milano) was used to collect kinematic data in a volume 2m long, 1.5 m wide, 2 m high. Twenty eight reflective markers were positioned on the main anatomical landmarks and on the saddle. Data acquisition lasted for 5 minutes in each trial.

Results and conclusions

The time course of joint angles of hip, knee, ankle, and the space oscillation of shoulder, trunk and pelvis were analysed. The fundamental frequency of the movement was 0.8 Hz at walking pace, 1.3 Hz at trot, 1.8 Hz at gallop. The range of flexion extension angles at the hip, knee, ankle were relatively small: 3°, 10°, 3° respectively at walking pace, slightly more at trot and gallop. The shoulders oscillation was different in the different simulated paces, but always in the order of 5-6 cm in the anterior-posterior direction, and 1.5-2 cm in the medio-lateral direction. These variables have shown a good reproducibility among the healthy subjects examined, while interesting differences were observed in relation to the pathologic patients. These preliminary data are still under investigation, and will constitute a basis for future 'on the field' studies.

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WORKSHOP

BASKIN – AN INCLUSIVE BASKET-BALL

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Key words: Baskin, disabilities, inclusive sport, integration, innovation, differentiation of roles.

« Baskin » is a new sport, thought and practiced to let youngsters with and without disability playing together in the same team (made of boys and girls !). It is a sport inspired by the normal Basket, using the same general *structure* and keeping the same main objectives, but changing some rules in order to make the activity adapted to everybody. Actually, Baskin allows the active participation of players who have whatever kind of handicap (physical or mental ; the only condition is to be able to realize a shot in a basket).
This possibility to open the game to everybody is based on a differenciation of roles, permitting the decisive contribution of eachone inside the team ; because the common success depends really on everybody! So this differenciation of roles permits in a positive way to overcome the charitable tendency to offer physical activities for disabled people.
The Baskin has been created, from a pedagogical point of view, taking into account the 4 main kinds of adaptation in APA's world :

- material : _ 4 baskets : 2 normal ones, and 2 small ones laterally situated (with a special dimension)
  _ possibility to replace the normal ball by another one lighter and/or smaller, in case of shoot in the lateral baskets
- space : _ « protected area » to allow a shoot in good conditions in the lateral baskets
- rules : *Each player has a role defined by his specific motor skills and has so a direct opponent with the same livel. Thanks to the definition of these roles, numbered from 1 to 5, the rules will be a bit different, giving like this to everyone an adapted challenge. For exemple :*

_ limited number of shoots during each period
_ tollerance (accepted by rules) for dribbling
_ defense authorized only on the direct opponent

- communication : _ attribution of a tutor (chosen inside the team) permitting the orientation of another player if needed (especially in case of mental disability)

It is necessary to indicate that this innovative activity, result of a low empiric process (and which has not maybe adquired its definitive aspect), is born in a scholar context, thanks to the active cooperation between some teachers of physical education and parents directly sensitive to disability's world (in Cremona, North Italy). We can understand actually the enormous educative potential that this activity can carry inside the school.

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(DIS)ABILITY, SELF-IMAGE AND GROUP RELATIONSHIPS, STUDY ON THE INTEGRATION THROUGH CIRCUS TECHNIQUES

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This experience of school integration for disabled persons wanted to turn upside-down the principle of inclusion.
We wanted "to adapt" the normodotatis class to the disabled person particularities putting him in the centre of planning: the proposed activities to each group were selected in function of the disabled person's better developing potentialities.

Objective
The proposal aims to create for each person the occasion to find a new expressive and creative itself that gives him the opportunity *"to play"* new rules, so that he can discover a different side of himself and show himself to the others under a new light for a better relationship with his mates.
The purpose is to strengthen the expressive abilities of people living an uneasiness situation through those techniques that are perceived as more spectacular and, therefore, that mostly strike boys' imagination, having also the advantage to charm them as an out of ordinary ability.

Assumptions
Basic physical activity and expressive activity are a formidable vehicle for the discovery of oneself and one's own potentialities, as well as a way of personal communication.
Expressive activities and communication are the strength points to compact groups, while physical communication is a powerful vehicle for transmission of ideas, but especially of emotions and it allows to show, pretending in a game, concepts otherwise hardly expressible.
Comparing one another, everybody employs dramatization and bodily expression techniques to make others know his own feelings and his own problems, as well as to create an immediate feeling of liking with his interlocutor.
To improve the ability of *introduce himself*, even concerning his own abilities image, means to try to improve the integration because to improve some coordination abilities, but above all, to make accessible denied activities, means to improve the disability condition…
We chose the techniques of circus skills, with its acrobatic elements, because they are perceived as more pleasant, gratifying, spectacular and therefore they mostly strike the imagination of everyone. Moreover they have the charm of *out of ordinary abilities* and are more easily usable to improve abilities of *"introduction of himself"* and *"communication"*.

Methods and results
The experience was valued trough the systematic observation and social investigation techniques (time sampling, sociometry, behavioural observation…) noticing fundamental increases of the integration degree in different types of disabled persons. Appreciable improvements don't appear in very serious disables. We did not make observations on the improvement of the disability.

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THE WORKSHOP ON INTRODUCTORY APA COURSES

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Key words: Inclusion, Adapted physical education, Teacher training.

Physical education should be delivered on an equal basis to students of all abilities; however research examining the impact of inclusion of students with disabilities has shown that equal opportunities are not being afforded to this cohort (Meegan & MacPhail, 2006). It is important that future physical education (PE) teachers be prepared to work with individuals with disabilities in inclusive settings. Sherrill (2004) organizes the competencies that future PE teachers need to acquire under (a) philosophy, (b) attitude, (c) knowledge, and (d) skill. Positive teacher attitudes can greatly influence the success of students with disabilities in general education settings (Kudláček, Válková, Sherrill, Myers & French, 2002). Antonak and Livneh (2000, p. 221) emphasized that "academic institutions and related training programs should engage in direct efforts to consciously modify students' and trainees' attitudes towards persons with disabilities." To achieve this goal, measurement instruments must be available to enable university professors to examine the efficacy of their instruction in facilitating attitude change in future public school teachers.

The purpose of this workshop (minisymposium) is to discuss the issues related to the preparation of competentnt PE teacher with the emhasis on the inclusion of students with disabilities in general physical education. The aims of the workshop are:
(a) To gather the information and experiences from European univesities and highlight the examples of good practice;
(b) To discuss professional competencies needed for inclusive PE;
(c) To prepare recommendation about the nature and structure of the course;
(d) To discuss and make recommendations in relation of practicum experiences in APA courses.

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