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Adapted Physical Activity for the Promotion of Health and the Prevention of Multifactorial Chronic Diseases: the Erice Charter

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Abstract

The Erice Charter was unanimously approved at the conclusion of the 47th Residential Course "Adapted Physical Activity in Sport, Wellness and Fitness: New Challenges for Prevention and Health Promotion", held on 20-24 April 2015 in Erice, Italy, at the "Ettore Majorana" Foundation and Centre for Scientific Culture, and promoted by the International School of Epidemiology and Preventive Medicine "G. D'Alessandro" and the Study Group on Movement Sciences for Health of the Italian Society of Hygiene, Preventive Medicine and Public Health.

After an intense discussion the participants identified the main points associated with the relevance of physical activity for Public Health, claiming the pivotal role of the Department of Prevention in coordinating and managing preventive actions. The participants underlined the importance of the physicians specialized in Hygiene, Preventive Medicine and Public Health. The contribution of other operators such as physicians specialized in Sport Medicine was stressed. Further, the holders of the new degree in Human Movement and Sport Sciences were considered fundamental contributors for the performance of physical activity and their presence was seen as a promising opportunity for the Departments of Prevention. Primary prevention based on recreational physical activities should become easily accessible for the population, avoiding obstacles such as certification steps or complex bureaucracy. The Sport Doctor is recognized as the principal referent for preliminary physical evaluation and clinical monitoring in secondary and tertiary prevention actions based on adapted physical activities. Developing research in the field is essential as well as implementing higher education on physical activity management in Schools of Public Health.

Abbreviations

APA:	Adapted Physical Activity
ASL:	Local Health Entreprise
AUSL:	Local Health Unit Entreprise
CARD:	Confederation of Regional District Associations
CONI:	Italian Olympic Committee
DP:	Department of Prevention
GP:	General Practitioner
GSMS-SItI:	Working Group on Movement Sciences for Health of SItI
HD:	Health District
INAIL:	Italian Insurance Agency for Occupational Casualties
ISTAT:	(Italian) National Institute for Statistics
MD:	Doctor of Medicine
NPP:	(Italian) National Prevention Plan
SItI:	Italian Society of Hygiene
SSN:	(Italian) National Health Service
UISP:	Italian Union of Sports for All
ULSS:	Local Socio-Sanitary Authority

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The Charter

At the conclusion of the 47th Course "Adapted Physical Activity in Sport, Wellness and Fitness: new challenges for Prevention and Health Promotion", held in Erice 20 to 24 April 2015, students and teachers unanimously emphasized the strategic importance of a systematic development of programs that would integrate physical activity within public health interventions, and approved the following Charter.

Introduction

Physical activity is a priority tool in the prevention of multifactorial diseases, as indicated by: (i) the current epidemiological scenario, (ii) the advances in adapted physical activity technologies and (iii) the scientific evidence. Today, adapted physical activity (APA) represents a "Biotechnology for Health". Beneficial potentials of movement - intended as a "super-drug" or better as a "super-prophylaxis" - can effectively apply to all prevention phases with a very high impact in opposing sedentary lifestyles and promoting social health, globally. In this perspective, preventive actions based on APA need to consider population differences in age and level of risk. This "movement-prophylaxis" may also include sports: not to gain success in competitions, but rather to gain health within prevention programs.

Different factors, including: the potentials of physical exercise for prevention, the morbidity and mortality burden ascribable to sedentary lifestyles, the highly multidisciplinary set of available skills and expertise, the need for merging spontaneous and fragmentary projects into systematic nation-wide interventions, and the novelty itself of the topic, **impose on Public Health a rigorous effort to develop optimized strategies** and translate them into harmonized actions.

Within this context, it should be noted as the recent Italian National Prevention Plan (NPP) 2014-2018 entrusts the **Departments of Prevention** (DP) of the Local Health Authorities (ASL) *"not only the role of direction in its own service provision, but also the role of governance for other interventions not directly promoted or realized, building and setting up integrated networks of links between stakeholders (institutional and not), that would connect - through reciprocal interactions - the local territory with the regional and national government"*.

This coordination driving task of the DP has its roots in the strong tradition and great culture of Italian Hygiene and Public Health Schools, but also in the multi-disciplinary and multi-professional everyday expertise of the prevention operators, over time implemented and confirmed in the recent PNP.

Aims

To encourage an aware and proactive initiative by DP and Health Districts (HD) focused on the design, planning, execution, monitoring, control and checking of interventions based on integration of physical exercise within prevention and health promotion actions: this objective has to be achieved by harmonizing the use of available resources and skills in the area, enhancing the role of different expertise, skills and specificities. The expected results in the short term include optimization and dissemination of preventive actions; in the medium to long term, the promotion of health in the population.

The key points

- Education and research: **the preventive role of physical activity is a constitutive**

part of the cultural and professional asset of the DP and of the HD. It is necessary and urgent to consider the issue of physical activity in the training of the public health operator, both by appropriate updating and continuing education, as well as by the inclusion of these topics within health-related undergraduate programs, medical schools and postgraduate schools of public health. University and research centers must be the primary reference and support for DP and HD projects, both at regional or national level. An intensive and synergistic collaboration between ASL and Universities is expected and sustained for the development of integrated projects, at local, national or international level, both for basic and applied research.

Multidisciplinary and integrated approach: the preventive actions based on physical exercise have to be **coordinated by the specialists in Hygiene and Preventive Medicine** and implemented in concert with other experts, including Sports Physicians, General Practitioners, Pediatricians, Nutritionists, Health Care Workers, Physiotherapists, Dieticians, Prevention and Workplace Technicians, as well as other specialists with the mandatory and strong involvement of University under- and postgraduates in Human Movement and Sport Sciences, who have to take up their own area for autonomous task accomplishment, actively participating in projects coordinated, supervised and promoted by the local DP, as well as other Hygienists in hospitals or ASL facilities. Actually, the under- and post graduates in Human Movement and Sport Sciences are an innovative opportunity, a promising and valuable resource for Public Health.

Safety: **any preventive action based on physical activity must take place in safety**. Structures for sports and physical activities must be safe and fulfill the basic hygiene requirements as well as all those already established for prevention at the workplace. Regarding preventive actions directed towards environmental and occupational safety, additional references can be the local municipal regulations, the standards prepared by the Italian Olympic Committee (CONI), the Italian Insurance Agency for Occupational Casualties (INAIL) and other local, national or European institutions. In this context, the Public Health component has the duty to actively contribute, participate, provide counseling and be involved in defining, improving, implementing and applying hygiene regulations with a leading role. Prevention directed towards individuals requires a preliminary medical evaluation to prescribe physical exercise for secondary or tertiary prevention. Therefore, *ad hoc* procedures are needed for a personalized prescription, including type, intensity and amount of physical exercise, tailored on the needs of each individual subject. A qualified MD could fulfill these tasks but, although several specialists as well as GPs and Pediatricians may be potential actors, the physician specialized in Sports Medicine and other specifically trained experts are the priority references entrusted with this type of clinical assessment. In order to encourage the spread of primary preventive actions to fight the sedentary lifestyles, the adherence to recreational-based physical activities should instead be maintained as free and simple as possible, avoiding any unnecessary certification, and respecting a reasonable cost-benefit analysis.

- Quality: **any intervention of physical activity for health promotion and disease prevention must aim at the highest quality**. Quality starts with the rigorous structuring of the prevention plan, and includes the appropriate monitoring of: indicators related to safety in the environment where physical activities are carried out; indicators related to personnel qualification requiring the

presence of graduates in Human Movement and Sport Sciences, three-year or five-year degree, depending on the type of intervention. The identification, evaluation and implementation of quality issues belong to the organization-management tasks that the Public Health Operators fulfill and are part of the competence of the physicians specialized in Hygiene and Public Health.

- Method: **The DP and the HD must operate in compliance with the principles and methods of epidemiology and preventive medicine**, rigorously adopting a scientific approach and actively collaborating with reference groups such as the GSMS-SItI, Scientific Societies, Olympic CONI, Sports Promotion Agencies, research and academic centers, nurturing a partnership of mutually complementary skills, founded on territory-university interaction. It will be always necessary to consider and carefully differentiate age groups and socio-cultural characteristics in the target populations; physical activity in the school must be enforced as a means of promoting health, requiring the presence of curricular teachers of Physical Education in Health Education plans involving physical exercise. New models will have to be taken into account, differentiating health programs involving sport competitions from those offering physical activities for primary, secondary, tertiary prevention (see Appendices). In accordance to previous experience, an online reference "MuoverSÌ" (www.societaitalianaigiene.org/muoversi) and other internet platforms will promote operative networks and disseminate new achievements and application models.

Conclusions

The DP is the local and operative expression of the SSN and plays a pivotal role in managing prevention and health promotion. The DP acts within an integrated network having an interdisciplinary structure and a population based approach. It engages the knowledge and the skills of Public Health operators, including physicians specialized in Hygiene and Public Health, Occupational Medicine, Veterinary Medicine, Health and Social Operators, Prevention Technicians, recruiting and coordinating all the necessary additional support from other professional skills and NHS expertise. The DP seeks synergies and alliances with local authorities and institutions, education and communication agencies, non-governmental organizations and private enterprises. In this wide context, University graduates in Human Movement and Sport Sciences represent an opportunity and a resource for prevention.

The specialist in Hygiene and Preventive Medicine stands as the fundamental reference for the promotion and organization of public health interventions that integrate physical activity as a means of prevention and health promotion.

To fight sedentary lifestyles, promote and prescribe physical activity is simply today's "good medicine" and "good healthcare"; conversely, not to engage in such efforts by operators and services is "bad medicine" and "medical malpractice". In this time, when the SSN is committed to the search for new strategies to combine effectiveness and economic sustainability, the promotion of physical activity appears a worthwhile investment and an attractive new opportunity for it.

Systematic population studies and prevention campaigns are very welcome for the promotion of physical activity as a recognized public health tool of absolute priority. This approach to primary prevention should be encouraged and simplified in terms of accessibility and cost-effectiveness, avoiding complex administrative procedures, unnecessary paperwork or "medical certification", obstacles that are not justified

to protect health when physical activity is offered in a public health perspective, rather than for competition.

Consequently, it is advisable to revise the present procedures, avoiding mandatory health evaluations, and proposing that no medical certification is required to access recreational physical activity in primary prevention programs for the general population.

The overlapping and fragmented local experiences should switch from a propositional and planning phase into a stage focused on rigorous assessment of the methods and results. This approach requires a strengthening of the synergistic interaction between territorial Seervices and Universities, with mutual respect of competences and reciprocal recognition of complementarities. Moreover, we need to promote research in this field of physical activity for public health purposes, with that spirit of constructive welcoming and multidisciplinary interaction that the 47th course of Erice has proposed, tested, proven and successfully applied. Therefore, feasible and promising conditions exist for implementing networks to propose and develop innovative interventions in schools, workplace, in health environments or at community level, as well as for the development of effective models for epidemiology, preventive medicine and public health. An opportunity and a challenge for Hygiene and Public Health and for Sport Medicine, for Health Operators and most of all for the Graduates in Human Movement and Sport Sciences, who are a new and vital resource for prevention and health promotion.

Final comments

The DP is undoubtedly the pivot around which all the programs of health promotion and the coordination of all the population-centered interdisciplinary initiatives should be constructed. It involves well-established knowledge and specific abilities of Public Health Operators, including specialists in Hygiene and Preventive Medicine, in Occupational Health, in Veterinary Medicine, Nurses and Public Health Technicians. Additional expertise is provided by other professionals, including Psychologists, Engineers, Architects, Information Technologists, all belonging to the DP. Alliances are promoted and established with local administration, communication and training agencies, the "Third Sector" and local entrepreneurs. With the present Charter, we state that, in the described context, additional space must be reserved for other professionals, such as Sport Doctors and Human Movement and Sport Sciences degree holders, who are necessary to appropriately and effectively organize, manage and evaluate new preventive initiatives in the field. Physical activity should be widely offered to the population, with the final goal of increasing health and avoiding several chronic diseases, including those most prevalent such as metabolic syndrome, cardiovascular diseases and tumors.

The physicians specialized in Hygiene and Preventive Medicine are the natural leaders and promoters for all the population-centered initiatives, but they are not expected to be the exclusive protagonists. To contrast sedentary lifestyles and to promote adapted physical activity, their naturally allied counterparts are Sport Doctors firstly, and also GPs, Pediatricians, and the Human Movement and Sport Sciences degree holders, whose specific competences are planning, organizing, managing and evaluating the physical exercise. Doing all that together is "good medicine", or better, "good public health"; on the contrary, neglecting, this would be "bad medicine", or better, "a lost occasion for public health".

At present, with the SSN actively searching for new strategies characterized

by effectiveness and economic feasibility, promoting adapted physical activity is a good quality investment for the Department of Prevention.

To realize this, a systematic investigation will be necessary to identify the diverse needs of physical activity of all the sectors of the population; and, in addition, the promotion of physical activity must be considered a priority for primary prevention initiatives. Recreational physical activity is essential to contrast sedentary life styles and should be easily accessible, at moderate price; further, medical certifications should be reduced to a minimum, because a non-agonistic practice of physical activity does not deserve too stringent medical controls.

During the Course, many local spontaneous initiatives of good quality have been described, which have made physical activity well accepted by the population. Now the moment has come to move from spontaneous local attempts to organized, nation-wide efforts to bring adapted physical activity to all the groups of population through systematic projects centered on the DP, with rigorous follow up and evaluation of the results. For that purpose, a strong synergy between the DP and the Universities is necessary, with an increase in university research on physical activity as an instrument of public health. Strict cooperation with the DP, adopting a recipe of mutual comprehension and complementarity between the Academic world and the Territory, has been largely applied during the 47th Course of Erice, and has shown in this occasion all its potentialities.

We strongly support the idea that the time has come to build a network of cooperation, applied to different environments such as the school, the family, the working environment, the institutionalized elderly and the whole community, in order to develop new epidemiological and preventive tools for the practice of health promotion, preventive medicine and public health.

This is a unique opportunity to bring physical activity and the non-competitive sport activities into the world of Public Health, giving additional opportunities for synergies with the Sport doctors and the Human Movement and Sport Sciences degree holders and, above all, contributing significantly to the health of the population.

Riassunto

Attività fisica adattata per la promozione della salute e la prevenzione delle malattie croniche multifattoriali: la Carta di Erice

La Carta Erice è il documento conclusivo approvato all'unanimità al termine del XLVII Corso Residenziale "Attività Fisica Adattata in Sport, Wellness e Fitness: Nuove sfide per la prevenzione e per la promozione della salute", tenutosi il 20-24 Aprile 2015 a Erice (TP) presso la Fondazione e Centro di Cultura Scientifica "Ettore Majorana" e promosso dalla Scuola Internazionale di Epidemiologia e Medicina Preventiva "G. D'Alessandro" e dal Gruppo di Studio di Scienze Motorie per la Salute della Società Italiana di Igiene, Medicina Preventiva e Sanità Pubblica.

Dopo un intenso dibattito i partecipanti hanno riassunto i punti principali relativi al nuovo significato strategico che l'attività fisica ha assunto per la Sanità Pubblica, rivendicando il ruolo centrale del Dipartimento di Prevenzione nel coordinamento e gestione di interventi di prevenzione che integrino l'attività motoria. In particolare è stato messo in risalto il ruolo fondamentale del medico specialista in Igiene e Medicina Preventiva in questo contesto. Anche il contributo di altri specialisti ed operatori sanitari è stato evidenziato, sottolineando l'importanza prioritaria del Medico dello Sport. Quanto ai nuovi laureati in Scienze Motorie, essi rappresentano competenze essenziali per un corretto svolgimento dell'attività fisica ed una promettente opportunità per collaborazioni e sinergie nel Dipartimento di Prevenzione. Ai fini della prevenzione primaria, l'attività motoria ludico-ricreativa dovrebbe diventare facilmente accessibile per la popolazione, evitando ostacoli certificativi e burocratici non indispensabili. Il medico dello sport è il riferimento principale per la valutazione clinica preliminare e per la prescrizione dell'esercizio fisico adattato in interventi di prevenzione secondaria e terziaria. Sviluppare la ricerca sul campo è essenziale così come l'aggiornamento dei percorsi formativi nelle scuole di specializzazione in igiene.

Notes: The original document (in italian) contains 5 appendices:

Appendix 1 – Integration of adapted physical activity into preventive interventions: definition and classification

Appendix 2 – The problem of ISTAT codes: considerations and proposals

Appendix 3 – The problem of prescription of physical exercises: considerations and proposals

Appendix 4 – Glossary

Appendix 5 – The decalogue of the Erice Charter

Those interested to obtain the appendices are requested to email <igiene@uniroma4.it>

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