

Higher education on physical activity and sport: The Movement Sciences graduate as a resource to promote healthy lifestyles in the National Health System

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Abstract

Currently, physical activity is an important tool that may be useful to improve people health and quality of life through sustainable and effective interventions. In order to obtain durable improvements of individuals' behaviors, however, consistent changes in services organization and the creation of new opportunities in life settings are needed.

This requires necessarily the involvement of complementary figures with specific competences. Considering their peculiar training curriculum, Movement Sciences graduates represent key figures in this context and they can operate fully in interventions of health education and promotion, within multidisciplinary teams collaborating with the National Health System (NHS), in order to obtain the global undertaking of citizens.

The promotion of Physical Activity

Currently, the Italian National Health System (NHS) is actively involved in searching new strategies that combine effectiveness and economic sustainability. In this framework, the promotion of Physical Activity (PA), which is a primary health goal identified by the World Health Organization (WHO) on the basis of scientific evidences, may represent a valuable economic and social investment (1). In light of this, the

Italian Ministry of Health and the Italian High Institute of Health have recognized its numerous benefits and included PA promotion among the recommended strategies in their recent prevention plans and guidelines (2-4).

The new Essential Levels of Care established by the Italian Government in 2017 consider PA as an instrument of health protection that should be life-long implemented in different settings (school, work, health, community settings). In particular,

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the Level “*Collective prevention and public health*” provides for activities of “*Promotion of physical activity and health safeguard of physical activity*” with multiple actions, including: “*Promotion and activation of programs aimed at enhancing the practice of physical activity in the general population and in risk groups, by promoting the development of opportunities and support from local communities*”; “*Preventive programs of physical activity shared among health services, educational institutions and employers*”; “*Promotion of counseling on physical activity from health personnel*”; “*Informative and educational campaign targeted to the general population or to specific groups*”; “*Promotion of structured programs of exercise for subjects at risk*”; “*Prevention and fight against doping*” (5).

The employment of movement in public health programs represents an ambitious and complex goal that may be reached, in the perspective of health promotion, not only through the sensitization of citizens regarding health benefits of PA, but also through essential social, economic and political interventions that should allow its implementation. The promotion of PA as a tool for fighting inactivity and determine health should be therefore considered as a priority shared by different subjects in health and social policies, in line with a multidisciplinary approach (2, 6, 7).

Hence, it is necessary to identify a global strategy that may favor the construction of convergences and agreements regarding common objectives by involving the higher number of qualified stakeholders (1).

The promotion of PA requires methodologies accurate, updated and suitable for the international context and the local demands. It finds applications for preventive purposes not only in exercise settings (stadiums, gyms, swimming pools, thermal facilities, parks), but also in healthcare facilities (hospitals, clinics, elder centers) or in schools and other social environments (oratories,

dance halls). This implies the involvement of complementary figures that should integrate their specific occupational competencies. The PA promotion is a priority that should be developed in a combined context in which the key figures from healthcare and other settings may build together targeted policies (3, 4, 6, 8, 9).

The graduate in Movement Sciences

In 1998, Law n.178 established in Italy the Degree Course in Movement Sciences (Class 33 – Degrees in Movement and Sport Sciences), with the aim of educating professionals able to “*comprehend, plan, and manage educational, recreational, athletic, or compensatory-adaptive-preventive physical activities*” (10).

With the new university organization of 2004 (Ministerial Decree n. 270), which introduced the model 3+2 years (bachelor’s degree + master’s degree), the path of the studies in Movement Sciences enhanced through three master’s degree courses with specific addresses: Degree Class LM67 “*Sciences and Techniques of Preventive and Adaptive Physical Activity*”; LM68 “*Sciences and Techniques of Sport*”; LM47 “*Organization and Management of Services for Sport and Physical Activities*” (11).

The Movement Sciences graduate represents a professional figure with peculiar competencies which originate from an exclusive educational path including bio-medical, psycho-pedagogical, economic and legal disciplines, in addition to those devoted to movement and sport. He promotes movement and educates people to the adequate practice of PA, contributing to the psycho-physical wellbeing (primary prevention), to the improvement (secondary prevention) and to the maintaining of health (tertiary prevention) in subjects with different age and conditions, even those of vulnerability, disability and social disadvantage (7). He should not be

confused with the physiotherapist, whose job is to heal sick people.

The educational program of the degree courses in Movement Sciences incorporates elements of health and body education together with basics of management, in order to favor the individual and community empowerment and enhance PA as a special and sustainable vehicle to disseminate the culture of “movement for health”, as stated by WHO guidelines (1, 12-14). Graduates in Movement Sciences can play an important role in promoting health in the educational setting, particularly in primary school. The lack of specialist teachers in Physical Education in the primary schools of various European countries makes children particularly vulnerable to the problem of inactivity. Primary school children represent the most sensitive group for education to healthy lifestyles, since the predisposition to the pleasure of being active can be consolidated during these years. School based interventions of physical activity promotion have shown beneficial effects on motor habits of children and a qualified physical education teacher plays a fundamental role in this context, representing a resource that would be well compensated in terms of public health (15, 16).

The negotiating table held by delegates of Movement Sciences and Physical Therapy graduates in 2013 at the Ministry of Health produced a document which defined the professional roles of the two categories, complementary and contiguous, with the aim of *“realize their own duties in a perspective of collaboration”*. In this document, the work environment of Movement Sciences is referred to individuals who are healthy, at risk or affected by stabilized chronic diseases, with preventive and re-educational goals. A particular place is reserved to fragile persons with special movement needs. The graduate in Sciences and Techniques of Preventive and Adaptive Physical Activity is the professional who can plan, manage and

evaluate programs of preventive and adaptive PA aimed at enhancing the movement resources of individuals, on the basis of their characteristics and conditions.

The document explicated the concept and the principles of Adapted Physical Activity (APA) as a tool for reconditioning health after rehabilitation, in order to *“fight hypomobility, favor socialization and promote healthier lifestyles”*. It suggested the introduction of APA in the national and local planning through the development of a network including selected facilities and institutions (gyms, sport centers, sport associations) recognized and certified by the National Health Service and able to guarantee the quality and the safety of APA programs (17).

Considering his education, the Movement Sciences graduate has the adequate skills to conduct health promotion activities; his competencies confer him an important role in the fight against doping and in the education of people to the correct use of supplements. He can work in team with healthcare professionals promoting health effects of movement and applying adequately the APA to the different settings and targets, and represents a resource for public health (18). His role of educator in health promotion strategies is widely recognized and is currently under certification by international institutions (7).

Table 1 shows the current regulations regarding the role of the graduates in Sciences and Techniques of Preventive and Adaptive Physical Activity in the Italian NHS.

Conclusions

Currently, physical activity is the most important available evidence-based technology to improve health and quality of life through sustainable interventions. In order to obtain durable improvements of individuals’ behaviors, however, consistent changes in

Table 1. Regional regulations regarding the role of graduates in Sciences and Techniques of Preventive and Adaptive Physical Activity in the Italian NHS

Region		Reference
	Document	Subject
Abruzzo	Regional Council Deliberation n.700/2018 http://bura.regione.abruzzo.it/2018/Speciale_101_12_10.pdf	<i>Regional Plan of Prevention 2014-18. Program 4 - Action n. 9 "Promotion of exercise through the creation of a network of territorial gyms"- Approval of regional guidelines for exercise promotion.</i>
Basilicata	/	/
Calabria	Regional Council Proposal of Law n.204/2017 http://www.consiglioregionale.calabria.it/upload/istruttoria/DOSSIER/DOS1538NRG1.pdf	<i>Projects aimed to reach the social wellbeing through physical activity and sport. Recognition of paths and health gyms and institution of regional week of sport and wellbeing.</i>
Campania	Regional Council Deliberation n.194/2018 file:///C:/Users/utente/Downloads/DELIBERA_DELLA_GIUNTA_REGIONALE_DIP50_4_N_194_DEL_04_04_2018%20(2).pdf	<i>Regional guidelines for Local Health Authorities on the promotion of adapted physical activity in individuals with stabilized non-transmittable diseases.</i>
Emilia Romagna	Regional Law n.18/2013 file:///C:/Users/utente/Downloads/LEGGE_REG_N18_LEGGI_REGIONALI.pdf	<i>Interventions for the promotion and the development of sport and physical-educational-recreational activities.</i>
Friuli Venezia Giulia	/	/
Lazio	/	/
Liguria	/	/
Lombardia	Brianza Health Safeguard Agency. Regional Council Deliberation n.315/2018 https://www.ats-brianza.it/it/albo-pretorio/1877.html?field=filename0	<i>Acknowledgement of the clinical management project "Active and healthy aging in Brianza Health Safeguard Agency: prevention of chronic diseases" and approval of interest manifestation to became part of the list of gyms promoting health active in the area of Brianza Health Safeguard Agency"</i>
Marche	Regional Council Deliberation n.IIX/2056/2011 – February 2014 regional Council Deliberation n.1118/2017 http://www.norme.marche.it/Delibere/2017/DGR1118_17.pdf	<i>Prescription of exercise as instrument of prevention and therapy in Lombardia</i> <i>Projects to support the promotion of physical activity *</i>
Molise	/	/
Piemonte	regional Council Deliberation. Proposal of Regional Law n.231/2016 http://arianna.consiglioregionale.piemonte.it/ariaint/TESTO?LAYOUT=PRESENTAZIONE&TIPOD_OC=TESTOPDL&FASEITER=PRESENTAZIONE&PDL=100231	<i>Initiatives aimed to reach the social wellbeing through the structured and adapted exercise. Establishment of paths and health gyms, General States of sport and wellbeing and institution of the regional week of sport and wellbeing.</i>
Puglia	regional Council Deliberation n.212/2018 http://www5.consiglio.puglia.it/GiessX/XSagArchivio.nsf/(InLinea)/provv.amm.-102-X/\$File/del212-2018.pdf?OpenElement	<i>Regulation regarding the recognition, the conduction, the promotion and the safeguard of adapted physical activity.</i>
Sardegna	regional Council Deliberation n.44-34/2017 https://www.regenesardena.it/documenti/1_386_20170925161151.pdf	<i>Adoption of operational addresses regarding the promotion/prescription of physical activity and the prescription of exercise for persons with chronic diseases, in implementation of action P-1.3.3 of the Regional Plan of Prevention 2014-2018.</i>

	regional Assembly Proposal n.417/2018 http://w3.ars.sicilia.it/DocumentiEsterni/ ResSteno/17/17_2018_11_06_076_P.pdf	<i>Interventions for the promotion of adapted physical activity and institution of health gyms.</i>
Sicilia	Regional Law n.16/2017 art.56 “Attività Motorie” http://www.iusetnorma.it/normativa/legge_regionale_sicilia_n_16_del_11_agosto_2017_disposizioni_programmatiche_e_correttive_per_l_anno_2017_legge_di_stabilit%C3%A3%C2%A0_regionale.asp modifying the Regional Law n.29/2014 regional Council Deliberation n.903/2017 http://www.sds.firenze.it/materiali/Stili_di_vita/Delibera_n.903_del_07-08-2017.pdf http://www.sds.firenze.it/materiali/Stili_di_vita/Delibera_n.903_del_07-08-2017-Allegato-A.pdf http://www.sds.firenze.it/materiali/Stili_di_vita/Delibera_n.903_del_07-08-2017-Allegato-B.pdf	<i>Programmatic and corrective dispositions for the year 2017. Regional Stability Law.</i> <i>Rules regarding the promotion and safeguard of physical activity and sport.</i> <i>Development of actions to support the active aging of the Tuscany population: update of organizational addresses for adapted physical activity and addresses for the adoption of initiatives to support physical activity in the community.**</i>
Toscana		
Trentino alto adige	/	/
	Regional Council Deliberation n.562/2018	<i>Regulations for the exercise of the fitness centers and health gyms referred to the Regional Law n.19/2009 “Regulations for the promotion and development of sport, movement and recreational activities”.</i>
Umbria		
Valle D'aosta	/	/
	Regional Law n.8/2015	<i>General dispositions about physical activity and sport</i>
	Regional Council Deliberation n.925 del 23.6.2017 (Bur n.67 del 18.7.2017) https://www.claudiosinigaglia.com/wp-content/uploads/2017/10/DGR-925--palestre-della-salute.pdf	<i>Approval of requirements and procedures needed to obtain the certification of “health gym” and addresses for prescription and administration of exercise- training aspects, as reported in the Regional Law n.8/2015</i>
Veneto		

* regarding APA programs for elder people supervised by graduates in Movement Sciences or persons trained by institutions recognized by the Italian National Olimpic Committee

** professionals figures qualified for proposition and supervision of APA are graduates in Movement Sciences and in Physical Therapy

services organization and the creation of new opportunities in life settings are needed.

The goal of facilitating the change – make healthy choices simple – can be reached by motivating persons towards the regular practice of PA and by establishing an alliance for health that may encourage the adoption of an active lifestyle (19).

The application of exercise programs within health promotion policies and preventive interventions is going to favor the

involvement of complementary figures with specific competences. Therefore, the inclusion of movement professionals in interventions of health education and promotion implemented by multidisciplinary teams collaborating with the NHS is becoming necessary for the global undertaking of citizens. Moreover, these interventions may conjugate the promotion of PA with other issues, such as the promotion of correct nutrition or actions against harmful substances.

Today, the Movement Sciences graduate represents a key figure in the context of the Public Health for the achievement of several health goals.

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Additional documents and the Italian version is available at: www.sitnazionale.it/BDS/muoversi and/or at link www.progettodoping.it

Riassunto

Educazione all’attività fisica e lo sport: il laureato in Scienze del movimento come risorsa per promuovere stili di vita sani nel sistema sanitario nazionale

L’attività fisica rappresenta oggi un importante strumento per migliorare la salute e la qualità di vita della popolazione attraverso interventi sostenibili ed efficaci. Affinché si possano realizzare cambiamenti durevoli nei comportamenti individuali, è però necessario che siano apportate modifiche nell’organizzazione dei servizi e introdotte nuove opportunità nel contesto di vita. Ciò richiede necessariamente il coinvolgimento e l’integrazione di professionalità complementari con specifiche competenze. Il laureato in Scienze Motorie, in virtù della sua formazione peculiare, rappresenta in tale ambito una figura chiave che può operare a pieno titolo in interventi di educazione e promozione della salute in collaborazione con team multidisciplinari e in continuità con il Sistema Sanitario Nazionale, al fine di realizzare una presa in carico globale del cittadino.

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