



Educación Médica

www.elsevier.es/edumed



ORIGINAL ARTICLE

Post-graduate education requirements for access to jobs in physical therapy



Raquel Leirós-Rodríguez^{a,*}, Antonio José Souto-Gestal^b, José Luis García-Soidán^c

^a Facultad de Fisioterapia, Universidade de Vigo, Pontevedra, Spain

^b Facultad de Fisioterapia, Universidade da Coruña, A Coruña, Spain

^c Facultad de Ciencias de la Educación y del Deporte, Universidade de Vigo, Pontevedra, Spain

Received 9 February 2017; accepted 21 April 2017

Available online 3 June 2017

KEYWORDS

Graduate education;
Professional competence;
Clinical competence;
Health services research;
Physiotherapy speciality

Abstract

Objective: To identify if physiotherapist employers require them to have some postgraduate training and, if there are such requirements, to identify them.

Material and methods: For this study, a specific survey was designed, in which the clinic director had to answer questions about the training of the professionals hired.

Results: The demands of 114 job bidders were analysed. Clinical directors (21.6%), require some postgraduate training so that the professional is able to adapt to the needs of the users of the centre. The most in-demand specialties were sports physiotherapy, gynaecology and obstetrics, osteopathy, neurology, and Pilates.

Conclusions: The acquisition of skills and competencies, such as information management skills, problem solving and decision making, are not being adequately integrated into the degree course. Interventions are needed by educational institutions and professionals in the sector to achieve training that meets the needs of the physiotherapy employment market.

© 2017 Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

PALABRAS CLAVE

Estudios de grado;
Competencia profesional;
Competencia clínica;

Requerimientos de educación de postgrado para el acceso a puestos de trabajo en fisioterapia

Resumen

Objetivo: Identificar si los contratantes de fisioterapeutas exigen como requisito tener alguna formación de posgrado y, de existir dichas exigencias, identificarlas.

* Corresponding author.

E-mail address: rleiros@uvigo.es (R. Leirós-Rodríguez).

Investigación en
servicios de salud;
Especialidad de
Fisioterapia

Material y método: Se diseñó una encuesta específica para este trabajo. En ella, el director de clínica debía responder a preguntas sobre la formación de los profesionales contratados.

Resultados: Se analizaron las demandas de 114 ofertantes de empleo. Los directores de clínica, en un 21,6%, exigen alguna formación de posgrado para que el profesional se adecúe a las necesidades de los usuarios del centro. Las especialidades más demandadas fueron la fisioterapia deportiva, ginecología y obstetricia, osteopatía y terapia manual, neurología y Pilates.

Conclusiones: La adopción de habilidades y competencias como la capacidad de gestión de la información, resolución de problemas y toma de decisiones no están siendo integradas durante la formación de la carrera de manera adecuada. Son necesarias intervenciones por parte de las instituciones educativas y profesionales del sector para alcanzar una formación que satisfaga las necesidades del mercado laboral en fisioterapia.

© 2017 Elsevier España, S.L.U. Este es un artículo Open Access bajo la licencia CC BY-NC-ND (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

Physiotherapy is understood as a branch of therapeutics such as pharmacology or surgery, although it has travelled a path to its professionalisation and conceptualisation which is very different to that of its partners. In fact, it was not until the end of the 20th Century when the studies of this profession were organised and, later, its conception as a discipline of specific knowledge.¹ Currently, the profession is officially regulated through the Health Professions Ordinance, which is fundamental for two aspects: the determination of physiotherapy as a profession with certain competences and the establishment of general principles of relationship between the members of the multidisciplinary health team. In addition, in the face of society, this is an aspect that guarantees to users and health recipients that the care they receive is provided by a competent professional.^{1,2}

In 2006, the maturity of this discipline in the university field was reflected in the acceptance of the proposal of the University Title of Degree in Physiotherapy included in the White Book of Physiotherapy Libro Blanco de Fisioterapia.³ This text clearly defines that this field of knowledge promotes and maintains health, cures disease and enables the recovery and rehabilitation of people throughout their lives, through expert intervention in the care of anomalies, deficiencies, functional limitations, disability and other changes in physical function and health status. It is important to point out the importance of this change for the development of research in physiotherapy graduates, who will facilitate the process of postgraduate training and may exercise activities aimed at deepening and discovering new fields of physical therapy, which will have repercussions on the physiotherapist practice at the level of care, teaching and management.

This change was motivated by the creation of the European Higher Education Area (EHEA) in 1999, which was a turning point in the educational programming of university careers in Europe and the methodologies used within them, with the aim of optimising university systems in more than 30 countries. The reforms that have derived from the European agreements in this field have covered both undergraduate and postgraduate and doctoral training.^{4,5} Among the changes that the new organisation of the different types

of university education has entailed are the paradigm shift of teaching, from focusing on the teacher as a source of knowledge to focusing on the student as they go through a process of learning and maturation. The objective of this process is that, at the end of the same, the students have acquired a series of competences necessary to carry out their professional role a posteriori; that is to say, they have acquired competences necessary for their later employability in the labour market.^{3,6}

The physiotherapy training has been affected by all of these reforms and, therefore, it is necessary to optimise the mechanisms related to the education of this profession to adapt to the needs and demands that society has regarding this guild.^{7,8} To achieve this, university training has been divided into three cycles:

- The first constitutes the degree of physiotherapy, in which a general training is acquired that enables the qualified individual to exercise the professional activities of a physiotherapist.
- The second leads to a Master's degree, within which a specialisation is acquired in some areas of the profession, whether at the clinical, academic or research level.
- Finally, the third leads to the title of Doctor, which implies advanced research training.

This new structure has meant great advances for the achievement of the title of physiotherapist in Europe. Until now, there have been different ways of accessing physiotherapy degrees, depending on the country of origin, whether via a three-year higher university degree (as in Denmark, Croatia or Austria), a four year degree (as in Belgium, Bulgaria or Finland) or a degree of Post-Secondary Education (as in Switzerland or Croatia).³ On the other hand, the countries now subscribed to the EHEA facilitate the free mobility of professionals among the countries adhering to this regulation in a way that facilitates the employability of graduates outside the country in which they studied through the harmonisation of training (in both their form and content). This whole process was reflected in the organisation of the curricula according to a series of knowledge and skills that must be acquired during the pre-graduate

stage of homologous way throughout the continent. However, the division in cycles that has been exposed implies that the first cycle training, despite authorising the professional regarding sanitary practice, does it in a generic way and without specialisation.^{5,9}

This organisation derives a great dependence on physiotherapists in postgraduate or second cycle training, since degree training is not sufficient to meet the demands of patients in the clinical environment. However, physiotherapists not only use postgraduate training as a tool for professional development towards specialisation, but it has been found that second-degree training sometimes satisfies basic knowledge and allows the development of generic attributes of the profession such as critical judgement, which is the ability to analyse and develop research skills. Qualifications that are inherent to the title of physiotherapist should form part of the first degree training.^{10,11} In fact, in previous works,^{12,13} how the development of the career of the physiotherapist is intimately linked to the postgraduate and Master's training has been clearly stated, along with the barriers that this dependence implies for the correct professional, personal and social development of the physiotherapists as both individuals and as a professional group.

Taking into account all of the above, and taking advantage of the recent organisational change and content that has occurred in higher physiotherapy education, we propose this study as an analysis of demand. That is, to carry out a strategic analysis of the current situation of postgraduate training in physiotherapy with the aim of identifying the existence or non-existence of formative deficiencies in the pre-graduate stage of this career and, if any, to identify them. In this way, we can set objectives of interest for academic and professional institutions to reinforce the weaknesses expressed by the respondents.

Although there is evidence of the relevance of postgraduate training in the profession of physiotherapist, there is no evidence in the literature of any work that has analysed the supply and the formative demand.¹⁴⁻¹⁶ Therefore, an ad hoc survey was designed to analyse the training of physiotherapists that had already been qualified and hired by others in private consultations in the autonomous community of Galicia. Through their answers, we will try to answer the following questions:

- What are the specialties most demanded by the providers of physiotherapy jobs, or what specialties do you require from your clinic managers?
- Is there a dependence on graduate training in physical therapy?
- Is post-graduate training in physiotherapy specialised or supplemented by training in the pre-graduate stage?
- If so, what are the shortcomings of pre-graduate physiotherapy training?

Methodology

Design and sample

This study had a descriptive cross-sectional design. Throughout the Official College of Physiotherapists of Galicia, a body

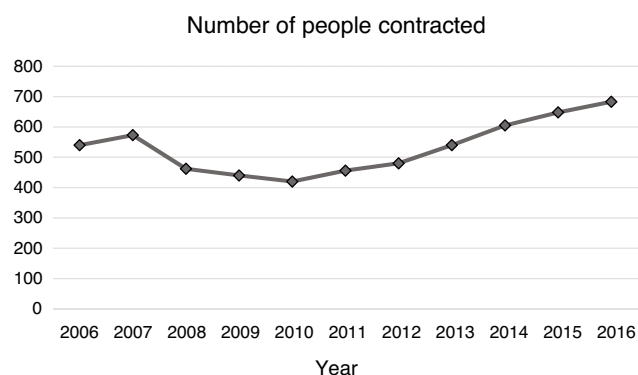


Figure 1 Market growth rate 2006–2010.

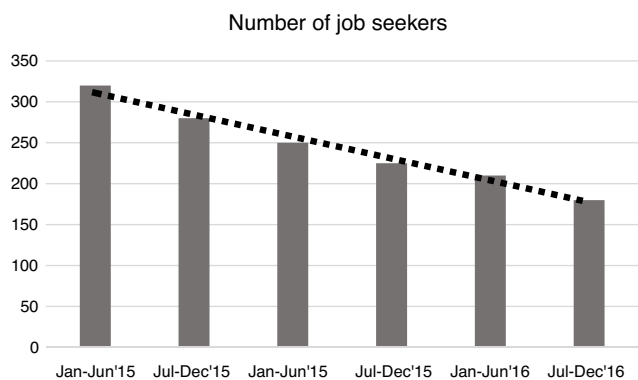


Figure 2 Job demand rate (2015–2017).

that brings together all professionals in the sector of the region, the census of physiotherapy clinics was obtained with a total of 250 records. After contacting each of them, we obtained the participation of 209 clinic directors in the study. This represented an 83.6% share.

Analysis of demand

When it comes to strategically analysing a sector, it is important to know the current situation of the sector, its evolution, as well as future prospects. If this information is incomplete or erroneous, the results obtained will be irrelevant. With regard to environmental variables, this work, due to its relevance, has focused on analysing demand. In this sense it is important to define aspects such as:

- Current size of the market: the recruitment profile in this sector is female (68.5%) and aged between 26 and 35 years old (35.7%). Regarding groups, it was shown that only 0.96% of all new contracts are made with people over 45 years.¹⁷
- Market growth rate: in Fig. 1,¹⁷ we can see the evolution of the newly created contracts to physiotherapists of Galicia in the period from 2006 to 2016. The reports of the labour market of the community government for later years show, for this profession, a strong tendency towards growth (Fig. 2).

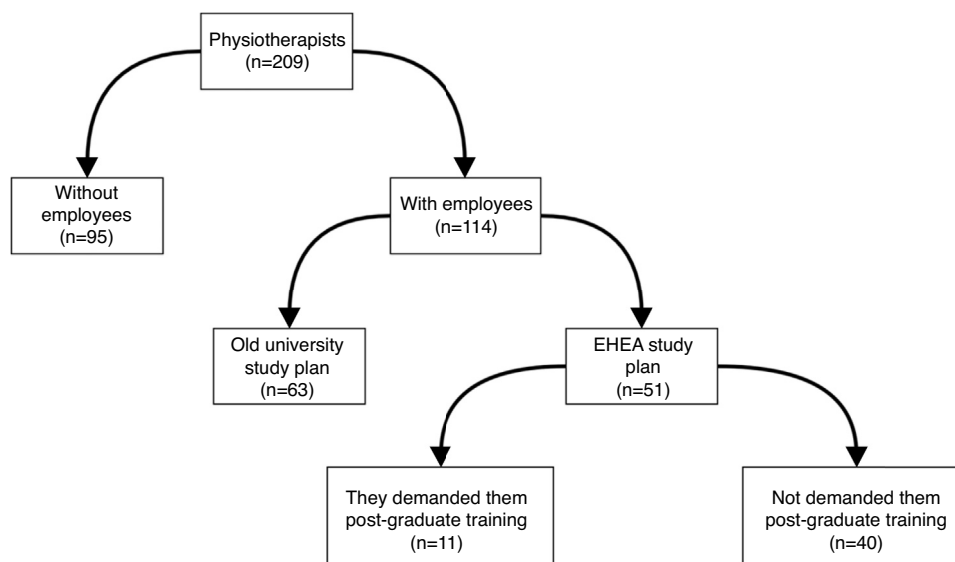


Figure 3 Sample description and distribution.

- Existing market segments: the market has been limited to a very specific type of client: physical therapy clinics. The segmentation of the market can be established based on the different clinical specialties in which the physiotherapy centres can be focused. These specialties are what define the complementary training that is required of graduate physiotherapists.

Process of obtaining information

A specific survey was designed for this work. In determining the evaluation aspects of the rubric, the Thurstone procedure was applied with 10 teachers who evaluated the set of elements using an 11-point Likert scale. Teachers had experience in teaching and evaluating laboratory activities. Once evaluated, it was answered by three active physiotherapists regarding their knowledge about how training in physical therapy is structured. After feedback from each of the three evaluating physiotherapists, the data were corrected for the last time.

The survey was structured in two parts:

- PART I. Personal Data and Work Centre: where the year of birth and graduation, sex, age of clinic and number of employees were collected.
- PART II. Postgraduate Training of Employees: where they collected the university degree in physiotherapy, post-graduate training performed and if they required some postgraduate training to gain access to the job (as well as the form of this postgraduate training).

This survey design was chosen to limit the time of accomplishment of the same and to avoid participants leaving the study or refusing to complete the survey. At the same time, we optimised the way in which relevant information was obtained for the study. Thus, if the physiotherapist was the only clinic professional to answer a total of 8 questions and if he had graduated employees, he had to answer 19

questions. In both cases, the completion of the survey did not exceed 4 min. Fig. 3 shows how the sample was distributed through the different iterations of the interview.

Data analysis

Since the survey contained closed and open questions, both qualitative and quantitative methodologies were used for data analysis. Thus, once the questionnaires and transcripts were collected, a preliminary analysis of the information was carried out based on the qualitative analysis model of Strauss & Corbin from the Grounded Theory.^{18,19}

The quantitative analysis consisted of the counting of answers obtained in each option of answer for each question and the calculation of the corresponding percentage. The quantitative analysis of the data was performed using Microsoft Excel.

Results

Of the 209 clinics that participated, 95 (45%) respondents were male and 114 (55%) were female. At the same time, the same distribution was observed in the type of clinic, since 45% had no employees and 55% had at least one physiotherapist employed. It should be noted that of the 114 managers who had employees, the distribution by gender was fairly equal since 47% (54/114) were men and 53% (60/114) women.

As for the dynamics of the clinics, as already mentioned, 45% were individual offices. Of the remaining cases, most were small clinics with no more than 3 employees (98 cases) and a small percentage had between 4 and 13 employees (16 clinics, 8% of the total).

As for the age of the clinics, for the analysis we divided the clinics into three groups reflecting the historical trend in the region: clinics founded before 2000 (80 cases), clinics founded between 2001 and 2004 (62 cases) and clinics established since 2005 (67 cases).

In relation to clinics with employees, we focused on the study of the demands of the employers towards the workers from the grade, since it was intended to obtain a vision of the current needs of the labour market. Based on this premise, of the 114 clinics that had employees, only in 51 had physiotherapists with experience of the new European curriculum. Of these 51 cases, in one fifth (11/51), the director of the clinic required some postgraduate training to be done prior to working in centre so that the professional was adapted to the needs of the users of the clinic. In turn, the most demanding specialties were sports physiotherapy, gynaecology and obstetrics, osteopathy, neurology, the Pilates method, and manual techniques (most often myofascial induction therapy).

Regarding whether physiotherapists detected training deficits or not at the pre-graduate stage in their employees, 41 subjects (36%) had not and 73 (64%) had. The analysis of the responses received for which aspects detected deficiencies showed that:

- 69 declared deficiencies in clinical practice,
- 7 stated a lack of theoretical knowledge,
- 21 reported little integration between the theoretical and practical contents of university education,
- 11 stated that knowledge was segregated between the different subjects of the career. Physiotherapists who highlighted this deficiency explained that that newly qualified professionals do not have a holistic conception of the patient,
- 7 indicated deficiencies in the treatment of the patient,
- 2 indicated that more training was required in specialties such as gynaecology.

The same participant could list several shortcomings in his response, explaining why the number of responses is so high.

Discussion

Taking into account the results presented here, a global picture of the current market for physiotherapy clinics can be drawn, in which more than 90% of the work is focused on the private practice of physical therapy through small, individual units or those employing four physiotherapists at most. It is this type of practice of physiotherapy, independent and individualistic, which explains the great dependence shown on postgraduate training, since the professional in charge of a clinic must respond to the great variety of demands that their employees have and thus satisfy its users.

In relation to the trend of the labour market regarding physiotherapy, and starting from the last report of the SEPE²⁰ (Servicio Público de Empleo Estatal), more than 60% of the job offers to physiotherapists come from the private sector and are oriented to the specialties of the profession in the field of sports, neurology, osteopathy, and the Pilates method. The results of this report are consistent with those of this study and show the specialties most demanded by the contractors to gain access to the job, which is a direct consequence of the treatment needs that their patients report to them daily. In addition, this report also reflects the specific skills required to access a job, including: the

ability to organise and implement programmes and methods of physiotherapy, management capacity and control of the environment and a good attitude with the patient (which includes both respect and empathy towards the client).²¹

From the same report carried out by the SEPE, reference is made to the fact that this professional sector is not alien to the general behaviour of the labour market in recent years: little hiring occurred during the years of intense economic crisis and there has been a recovery of hiring during the two last years. This aspect also agrees with the results of the present study, since only in the 40% of clinics with employees did we find physiotherapists coming from the new curriculum. This indicates, therefore, that graduates in recent years have not found work in this sector. In the same period of time, the specific public job offers for this group have been decreasing until today, failing to reach 7% of the total. Both aspects make it essential for both newly qualified professionals and the institutions responsible for their training to meet the demands of active physiotherapists as they are the visible face of the sector to society and the main job creators. On the other hand, the fact that professional physiotherapists are the main agents of absorption of new professionals in this sector should place additional responsibility on them, since the employers have a crucial role in the promotion of professional development of the personnel in charge and should support and promote initiatives that instil an organisational culture that promotes knowledge sharing and clinical practice based on scientific evidence.¹⁵ If employers actively participate in this, the benefits will be reported on themselves and the collective as a whole, improving the perception that society has of these professionals.

Finally, it should be noted that these results, although limited, can be extrapolated to other regions of Spain (as shown by the previous State Employment Public Service report) and other European countries, as other international debates have found common ground on the socio-cultural contexts that define the health needs of society. Also, the globalisation to which the processes of teaching and learning in higher education have just undergone should be considered.^{22,23}

Conclusions

This work has been the first to analyse, from the point of view of the group of physiotherapists, the training needs that are demanded and how this professional group behaves at the graduate level.

The profile of the current physiotherapist is drawn as an independent or space-sharing professional with a small number of partners with whom he develops the practice of care based on treatments focused on manual therapy (and are oriented to the specialties of the profession in the field of sports, neurology, osteopathy, and the Pilates method). In addition, future physiotherapists have to place special interest on training attitudinal skills, such as the transmission of trust, which satisfy the patient.

At present, there is a dependence on postgraduate training for physiotherapists, who, in part, are specialists, but sometimes provides formative deficiencies in pre-graduate physiotherapy, including some skills regarding attitudes

towards patients. This aspect should be a focus of interest and interventions by educational institutions and professionals in the sector to achieve training that meets the daily professional needs of physiotherapists which are a direct manifestation of the demands transmitted daily to patients.

Conflict of interest

The authors of this article declare no conflict of interest.

References

- Vidal IR, Cervantes RF, Rodríguez AM, Gómez JS, Insua MC, Seoane MB. La fisioterapia en España durante los siglos XIX y XX hasta la integración en escuelas universitarias de fisioterapia. *Fisioterapia*. 2011;23:206–17.
- Asociación Española de Fisioterapeutas. Reglamento nacional de la asociación española de fisioterapeutas. Madrid: AEF; 1991.
- Agencia Nacional de Evaluación de la Calidad y Acreditación. ANECA, editor. Libro blanco de la titulación de fisioterapia. 2004. Madrid, doi: 20896-2004.
- Ion G, Cano E. El proceso de implementación de la evaluación por competencias en la educación superior. un estudio sobre el rol de los cargos académicos. *Rev Invest Educ*. 2011;9:246–58.
- Maier NB. We are all students: the bologna process, Vol. 2. Amsterdam LF; 2009. p. 116.
- Benelux Bologna Secretariat. The official bologna process website July 2007–June 2010; 2010. Retrieved from <http://www.ond.vlaanderen.be/hogeronderwijs/bologna/>
- Camacho CI, Iranzo MC. La diplomatura de fisioterapia en el espacio europeo de educación superior: La visión del discente. *Fisioterapia*. 2008;30:180–5.
- Fuentes GR, Nieto MG. Los nuevos retos de la educación superior. V jornadas nacionales de educación en fisioterapia. *Fisioterapia*. 2003;25:1–5.
- González J, Wagenaar R. Tuning educational structures in Europe. Bilbao: University of Deusto Final report. Phase one; 2003.
- Gosling S. Physiotherapy and postgraduate study: a follow-up discussion paper. *Physiotherapy*. 1999;85:117–21.
- Stathopoulos I, Harrison K. Study at master's level by practising physiotherapists. *Physiotherapy*. 2003;89:158–69.
- Green A, Perry J, Harrison K. The influence of a postgraduate clinical master's qualification in manual therapy on the careers of physiotherapists in the United Kingdom. *Man Therapy*. 2008;13:139–47.
- Petty NJ, Scholes J, Ellis L. Master's level study: learning transitions towards clinical expertise in physiotherapy. *Physiotherapy*. 2011;97:218–25.
- Gosling S. Physiotherapy and postgraduate study. *Physiotherapy*. 1997;83:131–5.
- Peacock S, Hooper J. E-learning in physiotherapy education. *Physiotherapy*. 2007;93:218–28.
- Sran MM, Murphy S. Postgraduate physiotherapy training: interest and perceived barriers to participation in a clinical master's degree programme. *Physiother Can*. 2009;61:234–43.
- Consellería de Traballo e Benestar. Instituto galego das cualificacións Xunta de Galicia; 2015. Retrieved from <http://emprego.xunta.es/cualificacions/>
- Denzin NK, Lincoln YS. Grounded theory methodology: an overview. In: Denzin N, Norman K, editors. *Handbook of qualitative research*. London: Sage Publications; 1994.
- Riley RW. Handbook of qualitative research. *J Leis Res*. 1996;28:132.
- Servicio Público de Empleo Estatal (SEPE). Ministerio de Empleo y Seguridad Social, editor. Los perfiles de oferta de empleo de 2013: Fisioterapeutas. 2013.
- Leirós-Rodríguez R, Arce M, García-Soidán J. Situación actual de la formación de posgrado en fisioterapia. *Educ Méd*. 2015;16:188–95.
- Broberg C, Aars M, Beckmann K, Emaus N, Lehto P, Lähteenmäki M, et al. A conceptual framework for curriculum design in physiotherapy education – an international perspective. *Adv Physiother*. 2003;5:161–8.
- Higgs KR, Joy EE. Portrait of the physiotherapy profession. *J Interprof Care*. 2001;15:79–89.