

The physical therapist in the state of São Paulo

O fisioterapeuta do estado de São Paulo

El fisioterapeuta del estado de São Paulo

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ABSTRACT | To identify the profile of the physical therapist is important for a profession overview, which can help organs and institutions of higher education to train more qualified, fulfilled, valued, and recognized professionals for health care. The profile of the physical therapist has already been studied in other states, specific specialties or workplace; however we are not aware of the current profile of the physical therapist in the state of São Paulo (SP). The aim of this study was to describe the profile of the physical therapist of SP according to demographic, training, and professional performance aspects. All physical therapists registered in Crefito-3 with at least one year since graduation were invited to participate in the study, by means of answering an online questionnaire. In total, 2,323 physical therapists participated in the research. The sample was composed by: 80% women, 62% graduated between 2001 and 2010, 83% graduated from a private university, and 66.7% had attended a post-graduation specialization course. Most of them worked as physical therapists and had physiotherapy as their only source of income. The predominant workplace was home care and the monthly gross income was up to R\$ 3,000.00 in 45% of cases. Professionals who were graduated for a longer time, those who work in universities and in their own clinics were better remunerated. Most professionals are satisfied with their profession, often attend update courses, present low adherence to unions and associations and are unaware of the current legislation in force. There is a predominance of female physical therapists in the state of São Paulo, young, who attended a post-graduation

specialization course and who seek to be updated, but with low participation in the profession's institutions. Many are self-employed, professionals working in universities and in their own clinics are the best paid and the time of training and experience are relevant factors to achieve a better monthly income.

Keywords | Professional Practice Location Health; Health Personnel; Education Higher; Credentialing; Physical Therapy Specialty.

RESUMO | Identificar o perfil do fisioterapeuta é importante para obter uma visão geral da profissão, auxiliando os órgãos e instituições de ensino superior a formar profissionais mais qualificados para o cuidado em saúde, mais satisfeitos, valorizados e reconhecidos. Já foi estudado o perfil do fisioterapeuta em outros estados, outras especialidades ou local de trabalho específico, porém não temos conhecimento do atual perfil do fisioterapeuta do estado de São Paulo. O objetivo deste estudo foi descrever o perfil do fisioterapeuta desse estado segundo os aspectos demográfico, formativo e de atuação profissional. Todos os fisioterapeutas inscritos no Crefito-3 com mais um ano de graduado foram convidados a participar do estudo, que consistia em responder a um questionário on-line. No total, 2.323 fisioterapeutas participaram da pesquisa, sendo que 80% eram mulheres, 62% graduaram-se entre 2001 e 2010, 83% graduaram-se em uma universidade privada, e 66,7% realizaram pós-graduação *lato sensu*. A maioria atua como fisioterapeuta e tem a fisioterapia como sua única fonte

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de renda. O local de trabalho predominante foi o atendimento domiciliar e a renda bruta mensal foi até R\$3.000,00 em 45% dos casos. Os profissionais com mais tempo de formados, os que atuam em universidades e em clínicas próprias são mais bem remunerados. A maioria dos profissionais está satisfeita com a profissão, atualiza-se frequentemente, apresenta baixa adesão aos sindicatos e associações de classe e desconhece a legislação vigente. Há predominância feminina dos fisioterapeutas do estado de São Paulo, são jovens, com pós-graduação *lato sensu*, que buscam estar atualizados, porém têm baixa participação nos órgãos de classe da profissão. Além disso, muitos atuam como autônomos, e o tempo de formação e a sua experiência são fatores relevantes para obter uma melhor renda mensal.

Descritores | Área de Atuação Profissional; Profissional da Saúde; Educação Superior; Credenciamento; Fisioterapia.

RESUMEN | La identificación del perfil del fisioterapeuta es importante para entender la perspectiva de esta profesión, puesto que puede ayudar a los órganos e instituciones de enseñanza superior en la formación de profesionales más calificados en la atención en salud, más satisfechos, valorados y reconocidos. En Brasil hay estudios sobre el perfil de los fisioterapeutas en otros estados, especialidades o local de trabajo en específico, pero poco se sabe sobre el perfil del fisioterapeuta en el estado de São Paulo. El propósito de este estudio es describir el perfil de fisioterapeuta de este estado, desde el ámbito demográfico, de formación y de actuación profesional. Se invitaron todos los

profesionales inscriptos en el Consejo Regional de Fisioterapia y Terapia Ocupacional de la 3ª Región del Estado de São Paulo (Crefito-3) con, por lo menos, 1 año de graduado en fisioterapia para participar de la investigación y rellenar el cuestionario en línea. De los 2.323 fisioterapeutas participantes de este estudio, el 80% eran mujeres, el 62% se recibieron entre 2001 y 2010, el 83% estudiaron en una universidad privada y el 66,7% eran posgraduados. La mayoría de ellos trabajaban como fisioterapeuta, y esta área solía ser su única fuente de renta. Además, trabajaban predominantemente en casa, y el 45% de ellos recibían sueldo mensual hasta R\$3.000,00. Los que estaban más tiempo graduados, que trabajaban en universidades y en clínicas propias eran los que tenían mejores rentas. La mayoría de estos profesionales están satisfechos con su profesión, actualizan frecuentemente sus conocimientos, pero no participan mucho de los sindicatos y asociaciones de la clase, y desconocen la reglamentación vigente. Hay más mujeres fisioterapeutas en el estado de São Paulo, jóvenes, posgraduados, que buscan actualizar sus estudios, sin embargo, no participan mucho de los órganos relacionados a su profesión. También se observó que muchos trabajaban por cuenta propia, los que trabajaban en universidades y en clínicas propias son los que tenían mejor sueldo, y que el tiempo de formación y la experiencia son factores relevantes para tener mejores sueldos mensuales.

Palabras clave | Área de Actuación Profesional; Profesional de Salud; Enseñanza Superior; Acreditación; Fisioterapia.

INTRODUCTION

In 2015, physiotherapy completed 46 years of recognition as a higher education profession¹. During this period, there were many legal and scientific developments, and the current physical therapist bears little resemblance to the “rehabilitation technician” from the 1950s. Physical therapists are healthcare professionals active in health promotion, protection and recovery, with a wide area of expertise at different levels of health care, from primary to high complexity². At the same time, the Higher Education Expansion plan adopted in 1997 by the Brazilian Government and the facilitated access to universities were responsible for increasing the number of physical therapists and competition in the labor market. Due to this, the professionals are now facing requirements for differentiated skills to stand out among the more than 180,000 physical therapists

around the country³. Today, Brazil is the second country with the highest number of physical therapists, behind only the United States⁴. The state of São Paulo is the region with the largest number of courses⁵ and physical therapists in the country^{3,6}, and their quantity exceeds that of many countries, such as Italy, the Netherlands, the United Kingdom, and Australia⁴.

To identify the professional profile allows to orientate future actions of the profession's councils and unions in search of professional satisfaction, valuation and recognition, in addition to guide Higher Education Institutions regarding the world of work and the needs of the profession to train increasingly skilled professionals for health care. There are studies that described the profile of physical therapists of the state of Santa Catarina⁷, of the Brazilian researcher physical therapist⁸, working in cardiovascular rehabilitation⁹, in intensive care units^{10,11}, in the sports area¹², in the city

of Londrina-PR¹³, and of the egressed students from the Federal University of Minas Gerais (UFMG)¹⁴. However, there is no data on the profile of physical therapists of the state of São Paulo. The Regional Council of Physiotherapy and Occupational Therapy of the 3rd region (CREFITO-3) conducted in 2008 the I Census of Physiotherapy and Occupational Therapy, but the results were not published in scientific journals¹⁵.

In this context, the objective was to analyze the profile of physical therapists of the state of São Paulo, according to demographic aspects, training and professional qualification, technical-scientific affiliation, performance in the labor market, and knowledge of current legislation, according to the time since graduation, and the monthly income associated with the type of institution attended, year of graduation and workplace.

METHODOLOGY

In this observational study, all registered physical therapists in Crefito-3 were invited to participate in the research. The sample calculation defined the need for 2,220 responses. This number was obtained based on a finite population of 60 thousand professionals, with sample error of 2%, and 95% confidence level.

We included all physical therapists who graduated from an institution of higher education recognized by its competent bodies, entered in Crefito-3 and with at least one year since graduation. This period (after a year of completion of graduation) was determined to be sufficient time for professional decision in choosing an area of specialization or to get the first job. All participants who did not agree to participate in the study or did not answer all the questions from the questionnaire were excluded.

The invitation to participate in the research was sent by Crefito-3 in order to maintain the secrecy and confidentiality of the personal data of the professionals via e-mail. This invitation contained the link to access the online questionnaire. When opening the link, the informed consent form and the guidelines for completion of the questionnaire were available. The participant who was not in accordance with the consent form or with the inclusion and exclusion criteria, was directed to the "thank you" page. Three attempts of reply were made, with an interval of 15 days between them. In addition

to the e-mail, the invitation to participate in the research was published in a social network (Facebook).

For data collection, an online questionnaire was used in the Survey Monkey[®] platform. The questionnaire was developed by the researchers based in similar forms already used in other universities^{7,16}. After the completion of the development of the questionnaire, it was reviewed by a group of professors, professionals and students. In addition, a pilot study was conducted among the students of a graduate program.

Participation in the survey was voluntary, identification of professionals was not requested, and to avoid duplication, Survey Monkey[®] recorded the IP of the computer used to answer the questionnaire and did not allow a second access. The questionnaire was comprised of 31 questions, 26 being of multiple choice (with possibility to write comments on some of them) and five open questions. In addition, a logical sequence of responses was used to avoid answering of unnecessary questions.

This study was approved by the Research Ethics Committee of the University (protocol 152/13 of 04/24/2013).

RESULTS ANALYSIS

The variables were grouped into 5 aspects⁷: 1) *Demographic profile*: age and sex; 2) *Training and qualification*: type of institution, graduate studies, area of the graduate studies, an updates in the area; 3) *Labor market*: area and place of expertise, demographic distribution of professionals, salary regime, satisfaction with the profession, difficulties in entering the labor market, monthly income; 4) *Technical-scientific affiliation*: participation in associations and unions; 5) *Knowledge of the current legislation in force*: time load of the workday and wage floor value. In addition, they were divided according to time of training: Between 1969 and 1990, 1991 to 2000, 2001 to 2010, and 2011 to 2013.

All variables were tabulated in an Excel spreadsheet and analyzed with the IBM SPSS Statistics 21 software. Descriptive statistical analyses were carried out to obtain the absolute and relative frequencies of all the items assessed and Chi-square test for the analysis of association among the dependent variables (type of institution, year of graduation, and workplace) and the independent variable (monthly income).

RESULTS

We invited approximately 57 thousand professionals. We obtained 2,595 responses. Of these, 272 were excluded due to the exclusion criteria of the study. Therefore, this study is based on a sample of 2,323 (4.1%) valid responses (Table 1).

Sociodemographic profile

The sample of this study was represented by approximately 80% female physical therapists, aged between 21 and 61 years, and 73.1% were aged between 26 and 40 years.

Training and qualification

From the total of participants, 62% have completed the course of physiotherapy between 2001 and 2010 and 84.5% graduated in a private university. Until 1990, the number of graduates in public and private universities were similar, however after this period private institutions prevailed.

Regarding graduate studies, about 87% chose to attend a course after graduation, either masters/PhD,

specialization courses or extension courses – the option for specialization courses prevailed (66.7%). The areas of specialty are quite diverse. Orthopedy, cardiorespiratory, neurology and acupuncture are the most cited among the specialties recognized by the Federal Council for Physical Therapy and Occupational Therapy (COFFITO)². However, as often found in this regard, 28.5% attended a graduate course that is not recognized yet, such as exercise physiology, health of older adults, aquatic physiotherapy, pediatrics, hospital management, among others. From the respondents, 18.9% chose to do masters/PhD. Among the courses of extension (34.1%), this item included enhancement and improvement courses, as well as weekend courses. The most cited were pilates, lymphatic drainage, global postural reeducation, manual therapy techniques, Bobath, Kabat, and improvements in the area of respiratory and hospital physiotherapy. In proportion to the number of professionals graduated in each time span, we can affirm that professionals who were graduated for a longer time tended to opt for master's/PhD and had the highest levels of academic degrees. Professionals who graduated more recently preferred specialization courses.

Table 1. Frequency distribution of physical therapists in the variables age, sex and marital status of the physical therapists of the state of São Paulo and according to time since graduation

n	Year of graduation				
	Total (%)	1969-1990	1991-2000	2001-2010	2011-2013
	2323 (100)	112(4.8)	502 (21.6)	1438 (61.9)	271(11.7)
Age					
20-25	299 (12.9)	0 (0)	0 (0)	121 (8.4)	178 (65.9)
26-30	722 (31.1)	4 (3.5)	8 (1.6)	648 (45.1)	63 (23.2)
31-35	620 (26.7)	1 (0.9)	101 (20)	506 (35.2)	15 (5.4)
36-40	355 (15.3)	7 (6.1)	234 (46.8)	106 (7.4)	7 (2.5)
41-45	158 (6.8)	13 (11.4)	109 (21.9)	33 (2.3)	3 (1.1)
46-50	93 (4.0)	46 (41.2)	35 (6.8)	10 (0.7)	2 (0.7)
51-60	63 (2.7)	36 (32.5)	13 (2.5)	11 (0.8)	3 (1.1)
Over 60	9 (0.4)	5 (4.4)	2 (0.4)	3 (0.2)	0 (0)
Sex					
Female	1851 (79.7)	91 (81.6)	399 (79.5)	1143 (79.5)	217 (80.1)
Male	472 (20.3)	21 (18.4)	103 (20.5)	295 (20.5)	54 (19.9)
Marital status status					
Single	1.080 (46.5)	17 (14.9)	90 (18)	762 (53)	210 (77.6)
Married	1.065 (45.9)	72 (64)	356 (70.9)	601 (41.8)	39 (14.5)
Divorced	88 (3.8)	16 (14.1)	32 (6.4)	32 (2.3)	6 (2.2)
Widower	2 (0.1)	1 (0.9)	1 (0.2)	0 (0)	1 (0.4)
Others	88 (3.8)	6 (6.1)	23 (4.5)	43 (3)	15 (5.4)

Table 2. Frequency distribution of type of undergraduate institution, graduate studies, area of expertise, and academic degree of the physical therapists of the state of São Paulo according to time since graduation

	Total (%)	Year of graduation			
		1969-1990	1991-2000	2001-2010	2011-2013
Institution					
Private	1964 (84.5)	34 (1.7)	408 (20.7)	1236 (64.3)	240 (12.2)
Public	359 (15.5)	28 (7.8)	96 (26.7)	202 (56.3)	33 (9.2)
Graduate studies					
Specialization	1577 (66.7)	56 (3.5)	314 (19.4)	1066 (67.6)	141 (8.9)
Extension	805 (34.1)	51 (6.3)	200 (24.8)	484 (60.1)	70 (8.7)
Masters/PhD	446 (18.9)	43 (9.6)	136 (30.5)	242 (54.3)	25 (5.6)
Did not attend any	291 (12.3)	16 (5.5)	58 (19.9)	139 (47.8)	76 (26.1)
Area of Specialization					
Other	449 (28.5)	27 (48.2)	81 (25.8)	293 (27.5)	48 (34.1)
Orthopedics	301 (19.1)	12 (21.4)	71 (22.6)	190 (17.8)	28 (18.5)
Cardiorespiratory	283 (17.9)	11 (19.6)	42 (13.4)	212 (19.9)	18 (12.7)
Acupuncture	249 (15.8)	9 (16.1)	63 (20.1)	166 (15.6)	11 (7.8)
Neurology	201 (12.7)	9 (16.1)	43 (13.7)	133 (12.5)	16 (11.3)
Sports	161 (10.2)	7 (12.5)	56 (17.8)	88 (8.3)	10 (7.1)
Dermato-functional	146 (9.3)	2 (3.6)	17 (5.4)	113 (10.6)	14 (9.9)
Osteopathy	82 (5.2)	8 (14.3)	21 (6.7)	49 (4.6)	4 (2.8)
Collective Health	72 (4.6)	4 (7.1)	21 (6.7)	43 (4.0)	4 (2.8)
Occupational	71 (4.5)	2 (3.6)	15 (4.8)	45 (4.2)	9 (3.4)
Women's health	61 (3.9)	0 (0)	15 (4.8)	39 (3.7)	7 (4.9)
Academic degrees					
Master's	256 (10.8)	19 (7.4)	70 (27.3)	143 (55.9)	25 (9.8)
PhD	159 (6.7)	20 (12.6)	49 (30.8)	90 (56.6)	0 (0)
Postdoctorate	18 (0.8)	4 (22.2)	5 (27.7)	8 (44.4)	0 (0)

Labor market

About of 80.0% of respondents acted as physical therapists at the time of data collection, and of these, 67.3% had physiotherapy as the only source of income. The most cited workplace was home care (35%) and the prevailing wage regime was self-employment (47.2%). We observed an association between the workplace and the professionals' area of expertise, with the exception of industries and basic health units. This shows that professionals who attended specialization courses worked within their areas of expertise.

Of the 83.2% physical therapists working in the area, only 8.3% are in universities. Of these, 32% are master's, 34.5% are PhDs, and 5.1% have concluded postdoctoral studies. However, from the professionals who possess a master's, PhD, and postdoctoral degree, only 24.6%, 42.7% and 55.5% are working in universities, respectively.

In the demographic distribution of the professionals in the state of São Paulo, we observed that the highest concentration of professionals are in the capital (40.5%) and in the São Paulo metropolitan area (11.9%). In the countryside cities, Campinas (10.5%) and Ribeirão Preto (5.9%) are those with the largest number of active professionals.

Over half of the respondents (52.1%) claimed to have found difficulty to insert themselves into the labor market due to high competition and lack of experience. In addition, 66.3% are partially satisfied or very satisfied with the profession. Among the main complaints, there is lack of professional recognition and low salaries.

Regarding gross monthly income, 45.0% of the physical therapists receive up to R\$ 3,000.00. When considering for how long the professional was graduated, the physical therapist with more years of training and experience had better remuneration than those who graduated recently. When associating wage income to workplace, we observed that universities and the clinics owned by the professionals presented salaries above R\$ 10,000.00. Regarding the relationship between wage income and the type of institution (public or private), egressed students from public institutions are better remunerated, mainly in the salary range above R\$ 6,000.00.

The data from this study showed that 98% of the physical therapists who were working in the area sought to update themselves, by reading scientific articles (56.4%), participating in conferences (46.3%), and participating in free courses (39.5%).

Table 3. Distribution of frequencies related to working as a physical therapist, place of work, and wage regime according to time since graduation in years

	Year of graduation				
	Total (%)	1969-1990	1991-2000	2001-2010	2011-2013
Do you work as a physical therapist?					
Yes	1865 (80.3)	95 (83.3)	439 (85.9)	1220 (83.4)	211 (76.4)
No	352 (15.2)	15 (13.2)	60 (11.7)	214 (14.6)	63 (22.8)
Place of work					
Home	836 (35.4)	33 (28.9)	124 (24.3)	565 (38.6)	114 (41.3)
Office	324 (13.7)	13 (11.4)	71 (13.9)	208 (14.2)	32 (11.6)
Outsourced Clinic	314 (13.2)	6 (5.3)	39 (7.6)	215 (14.5)	53 (19.2)
Public Hospital	267 (11.3)	15 (13.2)	57 (11.2)	171 (11.7)	24 (8.7)
Own clinic	223 (9.4)	22 (19.3)	49 (9.6)	140 (9.6)	12 (4.3)
Private Hospital	208 (8.8)	6 (5.3)	35 (6.8)	144 (9.8)	23 (8.3)
University	197 (8.3)	19 (16.7)	75 (14.7)	101 (6.9)	2 (0.7)
Others	187 (7.9)	5 (4.4)	21 (4.1)	136 (9.3)	25 (9.1)
Industry	152 (6.4)	1 (0.9)	24 (4.7)	105 (7.2)	22 (8)
Basic Health Unit	131 (5.5)	9 (7.9)	36 (7)	80 (5.5)	6 (2.2)
Gym	86 (3.6)	0 (0)	7 (1.4)	59 (4)	20 (7.2)
Club	37 (1.6)	2 (1.8)	5 (1)	15 (1.7)	5 (1.8)
Wage regime					
Self-employed professional	1115 (47.2)	46 (40.4)	198 (38.7)	722 (49.4)	149 (54)
CLT (Brazilian Consolidation of Work Laws)	704 (29.8)	27 (23.7)	185 (36.2)	448 (30.6)	44 (15.9)
Service provider	320 (13.5)	11 (9.6)	57 (11.2)	214 (14.6)	38 (13.8)
Public server	186 (7.9)	22 (19.3)	55 (10.8)	102 (7)	7 (2.5)
Other	49 (2.1)	4 (3.5)	6 (1.2)	29 (2)	10 (3.6)

Table 4. Distribution of frequencies related to satisfaction with the profession, difficulties in entering the labor market, and gross monthly income according time since graduation in years

	Year of graduation				
	Total (%)	1969-1990	1991-2000	2001-2010	2011-2013
Satisfaction with the profession					
Very satisfied	227 (9.6)	26 (22.8)	62 (12.1)	117 (8)	22 (8)
Satisfied	465 (19.7)	28 (24.6)	103 (20.2)	277 (18.9)	57 (20.7)
Partially satisfied	875 (37.0)	26 (22.8)	163 (31.9)	590 (40.4)	96 (34.8)
Dissatisfied	283 (12.0)	13 (11.4)	75 (14.7)	167 (11.4)	28 (10.1)
Very dissatisfied	137 (5.8)	2 (1.8)	46 (9.0)	80 (5.5)	9 (3.3)
Did you find difficulty in entering the labor market?					
Yes	1231(52.1)	41(36)	240 (47)	812 (55.5)	138 (50)
No	756 (32.0)	54 (47.4)	209 (40.9)	419 (28.7)	74 (26.8)
Is physiotherapy your only source of income?					
Yes	1590 (67.3)	75 (65.8)	352 (68.9)	995 (68.1)	168 (60.9)
No	365 (15.4)	19 (16.7)	90 (17.6)	216 (14.8)	40 (14.5)
Did not answer	408 (17.3)	20 (17.5)	69 (13.5)	251 (17.2)	68 (24.6)
Gross monthly income					
Less than R\$1.500.00	251 (10.6)	3 (2.6)	35 (6.8)#	142 (9.7)	71 (25.7)#
R\$1.501-R\$3.000	813 (34.4)	18 (15.8)	145 (28.4)#	555 (38)#	95 (34.4)#
R\$3.001-R\$6.000	566 (24.0)	26 (22.8)*	140 (27.4)*	373 (25.5)#	27 (9.8)#
R\$6.001-R\$10.000	151 (6.4)	23 (20.2)	59 (11.5)#	68 (4.7)#	0 (0)#
R\$10.001-R\$15.000	59 (2.5)	20 (17.5)#	25 (4.9)#	14 (1)#	0 (0)#
Over R\$15 000.00	22 (0.9)	2 (1.8)	13 (2.5)#	7 (0.5)#	0 (0)
Did not answer	451 (19.1)	2 (1.8)	12 (2.3)	31 (2.1)	5 (1.8)

*(p<0.05); #(p<0.01)

Technical-scientific affiliation

Despite the Code of Ethics and Deontology of Physiotherapy recommending that physical therapist affiliate to associative entities class, only 15.8% of the physical therapists were part of any association or union. Those who had graduated recently had the lowest participation rate (5.4%).

Knowledge of the current legislation in force

Of the respondents, only 60.3% were aware of the maximum working day adjustment of 30 hours per week and only 13% answered correctly the value of the wage floor.

DISCUSSION

This study showed the prevalence of female physical therapists in São Paulo (80%) (which is consistent with other studies^{7,11,13,14,17-21}) and graduated after the year of 2001 in private institutions^{19,22}. As the undergraduate program in physiotherapy lasts between 4 and 5 years, we expected the growth in the number of professional graduated after the year of 2001, reflecting the Higher Education Expansion plan adopted in 1997. In 1997, under the pretext of increasing the offer of courses, the Federal Government encouraged and promoted the release of education to private enterprises, without, however, encouraging the expansion of the public network, in particular of federal institutions. To this end, the Brazilian Council of Education has accelerated and facilitated the process of authorization, recognition, and accreditation of courses and private institutions²³. The expansion of higher education has developed in an unregulated way and without any control, which caused numerous consequences, such as: lack of planning, privatization of education, questionable quality, and geographical concentration of the courses²⁴, mainly in the South and Southeast regions. Data from the Ministry of Education show that in 2015 there were 155 undergraduate programs in physiotherapy in the state of São Paulo alone, which is greater than the number found in the North and Northeast regions together⁵. This inequality in the distribution of the courses will reflect on the assistance provided to the population, due to the lack of professionals in some localities, and

corporate differences in the regions with the highest concentration of professionals^{19,22}.

Most physical therapists chose to perform a graduate or extension course (87.7%). This corroborates with the research carried out at the Federal University of Minas Gerais (83.8%)¹⁴, and is different from the profile of physical therapists of Santa Catarina, where 52.6% had performed some kind of specialization⁷. Career specialty areas are also in accordance with other studies^{7,14,15}. In this study, we included aquatic physiotherapy as a specialty still not recognized due to the date of data collection, but it was already recognized by COFFITO²⁵. Due to the large number of specialization courses, the accessible value (there are graduate courses with monthly fees from R\$ 199.00²⁶), and the anxiety of the egressed student to specialize in one area, having a graduate course is not seen as a differential for the labor market, making it almost “compulsory”. Within this context, we note the continuation of training aimed at the technicality and not to physiotherapeutical attention, as a member of a multidisciplinary team and with a larger view to the care of the user/customer/patient. With the lack of regulation on opening and maintenance of specialization courses, it is not possible to assess the quality of the courses offered. It is also possible to observe the trajectory of specialties throughout time. It is possible to observe that the areas of acupuncture, sports physiotherapy, osteopathy, and collective health present a decline in the number of students who seek specialization courses. On the other hand, dermato functional physiotherapy is on the rise, and others, orthopedics, neurology, occupational physiotherapy, women’s health, and the specialties that not yet been recognized by COFFITO present constant frequencies over time. We also observed that there are still many unrecognized specialties. However, there is confusion about what organ must make the recognition of specialties, whether it is COFFITO or area-specific associations, including by installing a specialization test that must be performed after the completion of specialization course.

Regarding master’s/PhD, 11% of the physical therapists are master’s and 6.8% are PhDs, a value above the one found in the population of Santa Catarina⁷. We found a relatively low rate of activity of masters and PhDs in the universities, which can be explained by the rapid growth in the number of PhD physical therapists in Brazil, around 900% between 1998 and 2008⁸. In this same period, the number of undergraduate courses grew

by 435%²⁷. According to the study by Coury (2009), it is possible to observe that public universities have more PhDs than private ones, in a relation of 5.6 PhDs per public universities to 0.84 for private ones. Therefore, there is still work for PhDs, including in private universities⁸.

However, only 8.3% of PhDs work with teaching. It is worth questioning, then, the reason for the non-nucleation of recently academic graduated professionals to the academy. The encouragement from the Ministry of Education to increase access to higher education with the growing number of higher education institutions is notorious, with availability of courses of physiotherapy and vacancies, with funding from public authorities (*Universidade para Todos* Program – ProUni and the Student Loan Fund – FIES). Before the alarming growth in the number of institutions that offer the course: this reality fulfills the role of physical therapists as reflective and transforming professional of the reality of the Brazilian functional-kinetic health, or did this encouragement take a left turn, by promoting the “industry” of higher education?

We found that 83.2% of the surveyed professionals are working as physical therapists, a number similar to those found in Santa Catarina⁷ and above the value obtained at the I Census of Physiotherapy and Occupational Therapy¹⁵. It is worth remembering that the professionals invited to participate in this research were the physical therapists with active register in the Council. The data found in the question regarding physiotherapy as their only source of income and wage regime as self-employed corroborate with the I Census of Physiotherapy and Occupational Therapy. Our study presented 35.4% of professionals who carry out home visits, against the 13.5% of the I Census of Physiotherapy and Occupational Therapy. The difficulty in hiring, low remuneration of health insurances, increased life expectancy of the population, and the possibility of maintaining two workplaces^{28,29} are some of the factors that may be related to the high number of professionals working as self-employed and in domiciliary care.

The demographic distribution of professionals was concentrated in the capital of the state, in the metropolitan region of São Paulo, and in the cities of Campinas and Ribeirão Preto. In these locations are located the major universities in the country, in addition to being the most populous³⁰. The city of São Paulo has a population of approximately 11.5 million people, 27 institutions of higher education, and 26,079

active professionals. Campinas has a population of 1.1 million people, 6 institutions of higher education, and 10,487 active professionals. Ribeirão Preto, in its turn, has 670,000 people, 6 institutions of higher education, and 6,252 active professionals^{5,6}.

In relation to gross monthly income, we found that 45% of professional earn up to R\$ 3,000.00 a month, a percentage similar to that found in the study conducted at UFMG (47.7%)¹⁴, and below the one found in the I Physiotherapy and Occupational Therapy Census (90.7%)¹⁵, and Santa Catarina (80%)⁷.

The state of São Paulo is the most populous of the country (10%), therefore it requires more human resources for physiotherapeutical care. All the people in Brazil have the right to access health care through the Brazilian Unified Health System (SUS)^{31,32}, including access to physiotherapy services. However, the majority of physical therapists of the state of São Paulo are in the supplementary system, either by medical cooperatives (insurance) or private services³³. With that, access to physiotherapeutical care is hindered to people with assistance exclusively through the services of SUS (70.1% in Brazil and 56.6% in São Paulo)³⁴. In addition, health insurances repress derisive values (a 50-minute session varies from R\$ 5.60 to R\$ 23.00 to the clinic, therefore the professional receives a percentage of this value). SUS, by hiring mainly in the municipal and state level or through social health organizations, pays low wages to physiotherapy care providers, having as a consequence the precarious work and, consequently, unqualified physiotherapeutic care by work exploration.

Another major difficulty encountered in the labor market of physiotherapy is the impossibility of hiring undergraduates in the places where they were interns, which are affiliated to the university sites and have a continuous flow of students. In these places, graduated professionals are replaced by students supervised by professors and without remuneration to the interns. This helps to justify the high rate of adherence to graduation courses, since professional experience and references are the same for all students. Only with time will professionals find an ideal workplace, will form their clientele, be recognized, and, at the same time, become more experienced and more specialized, always looking for new courses, updates and trending treatments. Finally, after all this, will they be better remunerated.

In addition, there is also the parallel internships, in which the interns conduct sessions with the same attributions of a graduated professional in order to

get closer to the labor market, gain experience and a monthly salary³⁶. However, those internships are often being held irregularly for not being linked to the educational institution and lacking appropriate supervision, in addition to performing activities that are not in accordance with the interns' degree of knowledge³⁶. Besides being illegal and disrespectful to the standardization of ethics, the replacement of physical therapists undermines the functional-kinetic health of people as the interns are not yet adequately qualified.

Despite all the difficulties of the profession, 66% of the surveyed professionals are partially satisfied to very satisfied. This number higher than expected, and these data are in agreement with the other publications. At UFMG, the percentage of satisfied professionals was 85.8%¹⁴ and 65.1% at the State University of Santa Catarina (UDESC)³⁷. About 50% of the respondents claimed to have found difficulties in the labor market, and sought to improve and upgrade to achieve qualification and valorization in the professional market.

Even in this context, the physical therapist in the state of São Paulo still has low adhesion to associations and unions, in addition to the lack of knowledge of the legislation in force. A justification for this fact would be the large amount of professionals who act in self-employment, to which there is not an established workload and salary. In this case, the actions of trade unions and the increase in the wage floor would not affect the clinical practice of these professionals. The model of technical training is also a factor, which does not follow the national curriculum guidelines to form critical, reflective, and transforming citizens.

Despite the use of a management platform for online questionnaires that avoided duplication of access, provided branching logic so only relevant questions were answered and all the care of sending three invitations to the participants, this study presented limitations due to the option of the digital system. There are still professionals who do not have access to the Internet and the difficulty is greater among older people. We obtained recent data from Crefito-3 showing that less than 40% of the registered physical therapists in the Council use or access e-mail and the response rate of the Council mailing is of 18%. We highlight as a positive aspect, the freedom of expression of the participants, as the questionnaire did not request identification, so many felt more free to answer it and write their opinion about the profession.

CONCLUSION

Our study shows a predominance of female physical therapists in the state of São Paulo, young, who attended a post-graduation specialization course and who seek to be updated, but with low participation in the profession's institutions. Many are self-employed, professionals working in universities and in their own clinics are the best paid and the time of training and experience are relevant factors to achieve a better monthly income.

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REFERENCES

1. Brasil. Casa Civil. Decreto-Lei nº 938, de 13 de outubro de 1969. Provê sobre as profissões de fisioterapeuta e terapeuta ocupacional, e dá outras providências. [Internet]. 14 out 1969 [acesso em 10 out 2016]. Disponível em: <http://bit.ly/2fZQ36h>
2. Brasil. Conselho Federal de Fisioterapia e Terapia Ocupacional. Especialidades reconhecidas pelo COFFITO. [Internet]. 2014. [acesso em 4 set 2014]. Disponível em: <http://bit.ly/2eDzF67>
3. Brasil. Conselho Federal de Fisioterapia e Terapia Ocupacional. Dados Estatísticos. [Internet]. 2014 [acesso em 9 nov 2016]. Disponível em: <http://bit.ly/2ekWlqg>
4. World Confederation for Physical Therapy (WCPT). WCPT Regions. [Internet]. 2014 [acesso em 10 out 2016]. Disponível em: <http://www.wcpt.org/regions>
5. Sistema de Regulação do Ensino Superior (e-MEC). Instituições de ensino superior e cursos cadastrados. [Internet]. 2015 [acesso 3 nov em 2015]. Disponível em: emec.mec.gov.br
6. CREFITO-3. Estatística de profissionais. [Internet]. 2015 [acesso em 3 nov 2015]. Disponível em: <http://bit.ly/2fSQZtY>
7. Altamiranda EEF. Perfil do fisioterapeuta no Estado de Santa Catarina [dissertação]. Florianópolis (SC): Universidade Federal de Santa Catarina; 2003.
8. Coury HJCG, Vilela I. Perfil do pesquisador fisioterapeuta brasileiro. *Rev Bras Fisioter*. 2009;13(4):156-163.
9. Mair V, Yoshimori DY, Cipriano Jr G, Castro SS, Avino R, Buffolo E, et al. Perfil da fisioterapia na reabilitação cardiovascular no Brasil. *Fisioter Pesqui*. 2008;15(4):333-8.
10. Norrenberg M, Vincent JL. A profile of European intensive care unit physiotherapists: European Society of Intensive Care Medicine. *Intensive Care Med*. 2000;26(7):988-94.
11. Nozawa E, Sarmento GJV, Vega JM, Costa D, Silva JEP, Feltrim MIZ. Perfil dos fisioterapeutas brasileiros que

- atuam em unidades de terapia intensiva. *Fisioter Pesqui.* 2008;15(2):177-82.
12. Silva AA, Bittencourt NFN, Mendonça LM, Tirado MG, Sampaio RF, Fonseca ST. Análise do perfil, funções e habilidades do fisioterapeuta com atuação na área esportiva nas modalidades de futebol e voleibol no Brasil. *Rev Bras Fisioter.* 2011;15(3):219-26.
 13. Trelha CS, Gutierrez PR, Cunha ACV. Perfil demográfico dos fisioterapeutas da cidade de Londrina/PR. *Salusvita.* 2003;22(2):247-56.
 14. Câmara AMCS, Santos LLCP. Um estudo com egressos do curso de Fisioterapia da Universidade Federal de Minas Gerais (UFMG) - 1982-2005. *Rev Bras Educ Med.* 2012;36(1, Supl 1):5-17.
 15. Malerbi FEK, Castro Y. Análise dos dados obtidos no I Censo dos Fisioterapeutas e Terapeutas Ocupacionais do Estado de São Paulo - Crefito 3. [Internet]. 2008. 41p. [citado em 10 out 2016]. Disponível em: <http://bit.ly/2fmDL4m>
 16. Universidade Estadual de Londrina. Acompanhamento do egresso: cadernos de avaliação institucional. Londrina: UEL; 2006.
 17. Almeida ALJ. Análise da prática profissional de Fisioterapia: implicações para um enfoque educativo no atendimento ao cliente [dissertação]. São Carlos: Universidade Federal de São Carlos; 1996.
 18. Badaró AFV, Guilhem D. Perfil sociodemográfico e profissional de fisioterapeutas e origem das suas concepções sobre ética. *Fisioter Mov.* 2011;24(3):445-54.
 19. Bispo Jr JP. Formação em fisioterapia no Brasil: reflexões sobre a expansão do ensino e os modelos de formação. *Hist Cienc Saude - Manguinhos.* 2009;16(3):655-68.
 20. Caldas MAJ. O processo de profissionalização do fisioterapeuta: o olhar em Juiz de Fora [tese]. Rio de Janeiro: Universidade do Estado do Rio de Janeiro; 2006.
 21. Israel VL. Caracterização da atuação profissional de um grupo de fisioterapeutas da cidade de Curitiba [dissertação]. São Carlos: Universidade Federal de São Carlos; 1993.
 22. Pereira LA, Almeida MJ. Fisioterapia. In: Ministério da Saúde, Fundação Oswaldo Cruz, editores. *Dinâmica das graduações em saúde no Brasil: subsídios para uma política de recursos humanos.* Brasília: Ministério da Saúde; 2006. p. 171-84.
 23. Corbucci PR. Financiamento e democratização do acesso à educação superior no Brasil: da deserção do Estado ao projeto de reforma. *Educ Soc.* 2004;25(88):677-701.
 24. Macedo AR, Trevisan LMV, Trevisan P, Macedo CS. Educação superior no século XXI e a reforma universitária brasileira. *Ensaio: Aval Pol Publ Educ.* 2005;13(47):127-48.
 25. Brasil. Conselho Federal de Fisioterapia e Terapia Ocupacional. Resolução nº 443, de 3 de setembro de 2014. Disciplina a especialidade profissional de Fisioterapia Aquática e dá outras providências [resolução na internet]. 03 set 2014 [acesso em 10 out 2016]. Disponível em: <http://coffito.gov.br/nsite/?p=3205>
 26. Portal PosEAD. Cursos de Pós-graduação a distância em Fisioterapia. [Internet]. 2015. [acesso em 3 nov 2015]. Disponível em: <http://bit.ly/2fCYJip>
 27. Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (INEP). Censo da Educação Superior 2014. Ministério da Educação; 2015. [acesso em 10 out 2016]. Disponível em: <http://bit.ly/2fmytpl>
 28. Brasil. Censo Demográfico 2010: Características gerais da população, religião e pessoas com deficiência. In: Instituto Brasileiro de Geografia e Estatística (IBGE), editor. Brasília; 2010.
 29. Moreira MM. O envelhecimento da população brasileira: intensidade, feminização e dependência. *Rev Bras Estudos Pop.* 1998;15(1):79-94.
 30. Instituto Brasileiro de Geografia e Estatística. Estimativas da população residente nos municípios brasileiros com data de referência em 1º de julho de 2014; 2014.
 31. Brasil. Casa Civil. Constituição da República Federativa do Brasil de 1988. [Constituição na internet]. Diário Oficial da União 05 out 1988. [acesso em 10 out 2016]. Disponível em: <http://bit.ly/1blJ9XW>
 32. Brasil. Casa Civil. Lei nº 8.080, de 19 de set de 1990. Dispõe sobre as condições para a promoção, proteção e recuperação da saúde, a organização e o funcionamento dos serviços correspondentes e dá outras providências [lei na internet]. Diário Oficial da União 20 set 1990 [acesso em 10 out 2016]. Disponível em: <http://bit.ly/1UVpr2U>
 33. Costa LR, Costa JLR, Oishi J, Driusso P. Distribuição de fisioterapeutas entre estabelecimentos públicos e privados nos diferentes níveis de complexidade de atenção à saúde. *Rev Bras Fisioter.* 2012;16(5):422-30.
 34. Agência Nacional de Saúde Suplementar. Dados e Indicadores do Setor. [Internet]. 2015. [acesso em 3 nov 2015]. Disponível em: <http://bit.ly/1SJyqmp>
 35. Grillo F. Sessão de fisioterapia, que custa em média R\$ 100, vale R\$ 5,60 para planos de saúde. *R7 Notícias.* [Internet]. 2013 [acesso em 10 out 2016]. Disponível em: <http://bit.ly/2fD5iPT>
 36. Viana RT, Moreira GM, Melo LTM, Souza NP, Brasil ACO, Abdon APV. O estágio extracurricular na formação profissional: a opinião dos estudantes de fisioterapia. *Fisioter Pesq.* 2012;19(4):339-44.
 37. Bueno GC, Nunes MM. Análise da satisfação profissional dos fisioterapeutas egressos pela UDESC de 2005-2010. [dissertação]. Florianópolis (SC): UDESC; 2011.