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# DEMOGRAPHIC PROFILE OF PHYSICAL THERAPISTS IN LONDRINA/PR

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## ABSTRACT

*The aim of this study was to draw the demographic profile of physical therapists in Londrina. It was evaluated a physical therapist population through a transversal study, according to a professional list obtained from the Regional Council of Physical Therapists and Occupational Therapy. 170 physical therapists answered a self-administered questionnaire with structured and semi-structured questions. Data were analyzed by Epi-Info 6.04b. Results showed that most Londrina with adult patients physical therapist are young women. The majority is working in specialty areas like orthopedic, neurological and reumathologic, mainly adults, at private practice and homecare.*

KEY WORDS: *demographic profile; physical therapy*

## INTRODUCTION

Physical therapy is a new profession if compared to the millenary medicine. In Brazil, the practice of physical therapy started in 1929 in the Santa Casa of São Paulo as an activity of tenical level. In 1951 appeared the first course to train physical therapists in the Service of Physical Therapy of the Hospital das Clinicas of São Paulo (REBELATTO; BOTOMÉ, 1999).

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In the 50's there was a marked expansion of centers for rehabilitation. In 1954, in Rio de Janeiro it was founded the Brazilian Beneficent Association for Rehabilitation (MOURA FILHO, 1999). In São Paulo was created the National Institute for Rehabilitation within the School of Medicine of the University of Sao Paulo. In 1959 it was created the Brazilian Association of Physical Therapy affiliated to the World Confederation of Physical Therapy.

Regulation of Physical Therapy as a liberal profession and of graduated level was made through the decree 938 from 13 of October of 1969 attributing to these professionals the execution of physical therapy methods and techniques aiming to restore, return and preserve the physical capacity of an individual (BRASIL, 1969).

In time there was a steady increase of the profession and in the present it is in a stage of accelerate scientific and cultural expansion obtaining an expressive space in the context of the community.

According to the profile of american physical therapists, in the period from 1980 to 1990, in the last decades the profession gained a great expansion. In 1980 there were 30.6 physical therapists per 10,000 inhabitants and in 1990 this rate had duplicated to 66.27 (CHEVAN; CHEVAN, 1998). Following to the USA, in Brazil there was an increase in the number of professionals as well as in the number of acadedmic programs.

Indeed, the profession has been experiencing an impressive growth. There were six undergraduation courses in 1970 and 700 professionals for a population of 90 million. In 1983, there were 22 courses. In the beginning of the 90's this number had increased to 55 (MOURA FILHO, 1999). Before the LDB/96 there were about 60 undergraduate programs on physical therapy in Brazil.

In 1998 there were 115 courses in Brazil. In 2002 there are 141 undergraduation courses in physical therapy all over the country.

## MATERIAL AND METHOD

The municipality of Londrina is situated north of the state of Parana and is the third largest city in the south region of Brazil with a population of 438.704 inhabitants (IBGE, 2000).

The city population follows the national tendency of demographic transition. In the last years it has been observed a reduction in the percentage of population under 14 years of age and an increase of those above 60 years, which in 1960 represented 5.4% of the total population and in 1996 increased to 7.32% (LONDRINA, 1996).

TRELHA,  
Celita Salmaso  
et al.  
Demographic profile  
of physical therapists  
in Londrina/PR.  
*Salusvita*,  
Bauru, v. 22, n. 2,  
p. 257-266,  
2003.

The city of Londrina is considered as regional spot in the northern region of the State and exerts influence in the areas of health, education and services in some areas of the states of São Paulo and Mato Grosso do Sul.

In the area of health, Londrina has a network of ambulatory and hospital services. Hospitals are quite diversified with small hospitals as well as specialized and high complexity ones. In the public health network the city counts with basic health care units, specialized ambulatories, clinical analysis laboratories, medical and dentistry offices and psychology, phono audiology and physical therapy consultation offices.

Taking these into consideration the aim of this paper is to study the demographic profile of physical therapists in the city of Londrina – Parana.

The studied population included physical therapists living and working in the city of Londrina. The study was conducted in the section of the Regional Council for Physical Therapy and Occupational Therapy responsible for the State of Parana (CREFITO-8). The total number of professionals registered in the Council in January 2000 was 246.

Sixty professionals were excluded from this study 30 due to retirement, 23 living in other cities or countries, 6 in maternity leave and 2 in academic leave.

The study included 186 professionals, but 4 could not be contacted and 12 did not replied the questionnaire. The final number, therefore, was 170 that represent a 91.40% of return.

Data collection was made in a questionnaire with structured and semi-structured questions involving personal and professional information.

After a phone calls were made to confirm an address and explain the purpose of the research, the questionnaires were personally handed to the physical therapists in their place of work or houses. After about 20 days the questionnaires were collected. In some instances there was needed to extend the deadline and to make new phone calls.

The statistical treatment was made in the software Epi Info 6.04b and Microsoft Excel.

## RESULTS

Females were predominant in the sample. Out of the 170 professionals, 80% (136) were female and 20% (34) were male.

Average age was 30.5 years. The younger was 22 and the oldest 52, seventy-seven percent showed age varying from 25 to 40 years and less than 5% showed age above 45 years.

The period of professional activity varied from 1.67 to 26.67 years, average 8.99 and median 8.0 (SD  $\pm$ 5.82). However, the length of time working effectively as physical therapist varied from 0.83 to 26.67 years, mean 8.44, median 7.17 (SD  $\pm$ 5.62). It was possible to observe that 100 physical therapists (58.9%) have worked for less than 9 years. Out of these, 34 (20%) have been practicing for less than 3 years. Only 12 physical therapists (7.1%) have worked in the field for more than 18 years as can be seen in TABLE 1.

TABLE 1 – Distribution of physical therapists in Londrina according to the period in time at work

<b>Time at work in years</b>	<b>n</b>	<b>%</b>
0  — 3 years	34	20.0
3  — 6 years	37	21.8
6  — 9 years	29	17.1
9  — 12 years	25	14.7
12  — 15 years	16	9.4
15  — 18 years	17	10.0
Above de 18 years	12	7.1
<b>Total</b>	<b>170</b>	<b>100.0</b>

Physical therapists in Londrina work in many areas: neurology, orthopedics, cardio-pulmonary, gynecology and obstetrics, reumatology, pediatrics, gerontology, sports, communitarian and esthetics. Ninety-six (56.6%) professionals report working in 3 or more areas, 43 (24.7%) in only one area and 32 (18.8%) in 2 areas.

It was noted that the most prevalent area is orthopedics followed by neurology and reumatology. The area attractive less professionals is esthetics, gynecology and obstetrics. This distribution can be seen in TABLE 2. Other areas were also cited such as communitarian health, vascular, hydrotherapy, acupuncture, infectology (HIV/AIDS) and preventive health.

The majority of physical therapists in Londrina, 143 (84.1%) deals with adult clients, 22 (12.9%) children and 5 (2.9%) both adults and children in the same proportion.

TRELHA,  
Celita Salmaso  
et al.  
Demographic profile  
of physical therapists  
in Londrina/PR.  
*Salusvita*,  
Bauru, v. 22, n. 2,  
p. 257-266,  
2003.

TABLE 2 – Distribution of areas of work physical therapists in Londrina.

Áreas of work	n	%
Orthopedics	117	68.9
Neurology	88	51.8
Reumathology	72	42.4
Cardio-pulmonary	56	32.9
Pediatrics	55	32.4
Gerontology	38	22.4
Sports	34	20.0
Ginecology and obstetrics	29	17.1
Esthetics	15	8.8
Other	12	7.1

Participants may answer more than one area, therefore the number and percentage corresponds to the answer for area and not to the total of the sample size.

In what regards the weekly working periods it was observed that professionals spend more time in teaching institutions and in clinics. The distribution can be seen in TABLE 3.

TABLE 3 – Distribution of weekly working period for physical therapists and the respective place of work.

Place of work	Weekly working period					
	1  — 20		20  — 40		40  — 60	
	n	%	n	%	n	%
Hospital	3	10.7	22	78.6	3	10.7
Clinics	21	16.7	48	38.1	57	45.2
Philanthropic institution	6	50.0	6	50.0		
Teaching institution	3	13.6	6	27.3	13	59.1
Domiciliar Home care	35	76.1	7	15.2	4	8.7
Swimming pool	18	72.0	7	28.0		

Some professionals did not answer this question.

The average number of patients seen per week by physical therapists in the city of Londrina varied from 3 to 400 by professional. The mean was 57.22 and the median 50 (SD  $\pm$ 51.67). A hundred and thirty-seven participants (80.6%) reported attending up to 100 patients per week and 19 (11.1%) professionals reported a number of 101 to 200 cases per week. Only three (1.8%) reported more than 200 cases a week. Eleven participants did not answer to this question.

As regards the place of work almost one fourth of physical therapists in Londrina work in three or more places; 51 (30%) in two places and 79 (47%) in just one place.

The most common place is a clinic or office (75.9%) followed by domicillar care (30.6%), hospital (22.9%) and teaching institution (17.6%). More data can be seen in TABLE 4. Some other places were mentioned by physical therapists such as corporation, gym academia/clubs, rest home, Social Service of the Commerce (SESC), Health unit and Emergency Room.

TABLE 4 – Distribution of places of work of physical therapists in Londrina

Place of actuation	n	%
Consultation office	129	75.9
Domiciliar Home care	52	30.6
Hospital	39	22.9
Teaching institution	30	17.6
Swimming pool	26	15.3
Philanthropic institution	12	7.1
Others	16	9.4

Participants reported working in more than one place of work. therefore the number and percentage correspond to the answers.

## DISCUSSION

Physical therapists in the city of Londrina are mainly young females, as other studies also show. Chevan and Chevan (1998) conducted a statistical study about physical therapists in the USA from 1980 to 1990 and detected predominately young females among the professionals. The average age was 30.2 yeas in 1980 and 33.5 years in 1990. They also observed that less than 10% were 50 years or

TRELHA,  
Celita Salmaso  
et al.  
Demographic profile  
of physical therapists  
in Londrina/PR.  
*Salusvita*,  
Bauru, v. 22, n. 2,  
p. 257-266,  
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TRELHA,  
Celita Salmaso  
et al.  
Demographic profile  
of physical therapists  
in Londrina/PR.  
*Salusvita*,  
Bauru, v. 22, n. 2,  
p. 257-266,  
2003.

older. Cromie et al. (2000) detected 75% of females with average age of 38 years among professionals. In João Pessoa, Brazil, Jales (2000) detected 71.5% of females and 28.5% of males with age varying from 25 to 50 years. In São Paulo results showed that, among professionals, 80.7% were females and 19.3% were males with average age of 31 years (MESSIAS, 1999).

The relevant number of females working in the field seems to be related to the moral and social antecedents of the first women that cared for sick people against payment (MEYER, 1993). The female shows some characteristics attributed to woman that grant them, associated to the process of socialization, the possibility to develop activities in the area of teaching and health (BRUSCHINI, apud MEYER, 1993).

Castro et al. (1994) show that women's work is always associated functions of assistance and tasks that require fine motor and manual coordination.

Medici et al. apud Pitta (1999), besides confirming the "tendency for feminilization" in the health sector, adds that the increase of female work in the area of health has been more significant among workers with university level.

Regarding the period in time of work as a professional it was observed that 60% of physical therapists in Londrina have worked for less than 9 years, which can be explained by the fact that this profession is relatively new and most professionals are young. Comparing the professional phases of the life of a doctor, as mentioned by Machado (1997) and the period of actuation, it could be said that the majority of physical therapists in Londrina are in the initial stage of the profession and affirming themselves in the working market.

The physical therapists can work in many areas or specialties. Orthopedics and neurology were the areas showing greater concentration of professionals, a finding that was also reported by Messias (1999), Mierzewosck and Kumar (1997). This demand is related to a predominance of chronic degenerative pathologies and trauma.

The individualized attention of patient stimulates professionals to increase the demand of cases. It can be said that physical therapists shows a multiple nature in their activities and process of work once they work in health institutions, hospitals, domiciliary, teaching institutions and other.

The Federal Law 8859 of March 1<sup>st</sup> 1994 limits the working hours of physical therapists to 30 hours per week aiming to preserve health and decrease physical fatigue (CONSELHO FEDERAL DE FISIOTERAPIA E TERAPIA OCUPACIONAL, 1995). Although the law limits the work load, in practice the reality is diffe-

rent. To increase income physical therapists work in many places and beyond the fixed working load.

Besides these factors it is necessary to place these professionals in the present context of the work market. In the area of science, including physical therapy, there is globalization and technological revolution; social, economical and political changes tend to modify the behavior of workers. Furthermore, the working market has changed showing a crisis of supply and demand, unemployment, strikes, forced reduction of the working time, among others (MACHADO, 1997). According to the report by the Work International Organization there are presently one billion unemployed or underemployed people in the world. In Brazil, according to data from the Instituto Brasileiro de Geografia e Estatística, unemployment jumped from 3.4% in 1994 to 4.4 in 1995 including wage reduction.

In Londrina, 53.5% of the participants referred that they were working in two or more places. This certainly increases the monthly income but the intense rhythm of work is a factor leading to overworking. Factors such as the distance from one working place to the other and the traffic itself can contribute to the overload of these workers, besides the excessive load of work of the performed activities (MESSIAS, 1999).

Pitta (1999) says that low salaries and the ideology of social upgrade put some pressure on professional to take two or more jobs jeopardizing their rest, leisure and family life.

Physical therapists are inserted in a work market of confronts the situation of monthly paid salaries in public jobs or private jobs and the situation of liberal work at private practice in clinics and at the domicile of patients. Professionals get paid by each case or in basis of a monthly salary being the latter characterized by a contract with fixed remuneration according to the hours worked. Agosto, Peixoto and Bordin (1998) mention, in addition, the existence of a regulation of the market by health insurance companies that act as an intermediary between the profession and the user.

## CONCLUSION

Physical therapists in the city of Londrina are mainly young females working in many places and different specialties. The present study aimed to be a source of data on the characteristics of physical therapists and to provide needed information to support evaluation and health planning.

TRELHA,  
Celita Salmaso  
et al.  
Demographic profile  
of physical therapists  
in Londrina/PR.  
*Salusvita*,  
Bauru, v. 22, n. 2,  
p. 257-266,  
2003



TRELHA,  
Celita Salmaso  
et al.  
Demographic profile  
of physical therapists  
in Londrina/PR.  
*Salusvita*,  
Bauru, v. 22, n. 2,  
p. 257-266,  
2003.

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TRELHA,  
Celita Salmaso  
et al.  
Demographic profile  
of physical therapists  
in Londrina/PR.  
*Salusvita*,  
Bauru, v. 22, n. 2,  
p. 257-266,  
2003.