

Profile of faculty members and of contents of Physical Therapy in Women's Health taught in Public Institutions of Higher Education in Brazil

Perfil dos docentes e do conteúdo de disciplinas de Fisioterapia em Saúde da Mulher ministradas em Instituições de Ensino Superior (IES) públicas no Brasil

Perfil de los docentes y del contenido de asignaturas de Fisioterapia en Salud de la Mujer impartidas en Instituciones de Educación Superior (IES) públicas en Brasil

Patricia Driusso¹, Mariana Tirolli Rett², Maria Cristina Cortez Carneiro Meirelles³, Maria Elisabete Salina Saldanha⁴, Miriam Raquel Diniz Zanetti⁵, Cristine Homsy Jorge Ferreira⁶

ABSTRACT | It was assessed the profile of faculty members and contents of Physical Therapy in Women's Health taught in Public Institutions of Higher Education in Brazil. This is a cross-sectional and descriptive study. Professors of Physical Therapy in Women's Health or related areas of Brazilian Public Institutions were invited to fill a structured questionnaire containing questions about personal information, academic background, professional experience and syllabus of the subject. Data were descriptively analyzed in the SAS Program. Fifty-one professors of 44 Physical Therapy programs participated in the research. Most of the professors were women, with an average age of 39.6 ± 7.4 years. Most of them held research, teaching and extension activities and master's and doctoral degrees, but only 25.5% are registered in Graduate Programs in Specialized Fields (Master's or Doctorate). All programs offer at least one compulsory subject and in 54.6% of the programs a compulsory internship in Physical Therapy in Women's Health is offered. The contents taught and practice scenarios are diverse, as well as the name of the subjects and internships. In most programs, students learn how to

perform vaginal palpation in the internship and practical skills are trained in a diversified way and in varied practical scenarios. The professors are young, female and conduct teaching, research and extension activities. All programs offer mandatory subjects in the area and most of them offer mandatory internship. The name of the subjects vary as well as the form of training of the practical skills taught. **Keywords** | Physical Therapy Specialty; Women's Health; Faculty.

RESUMO | Foi realizado um estudo transversal descritivo em que se avaliou o perfil dos docentes e o conteúdo ministrado em disciplinas de Fisioterapia em Saúde da Mulher em Instituições de Ensino Superior (IES) públicas do Brasil. Docentes da área de Fisioterapia em Saúde da Mulher ou áreas afins de instituições públicas brasileiras foram convidados a preencher um questionário estruturado, contendo questões sobre dados pessoais, formação acadêmica, atuação profissional e conteúdo programático da disciplina. Os dados foram analisados de forma descritiva no Programa SAS, sendo que participaram 51 docentes, de 44 cursos de Fisioterapia,

¹Physical Therapist, post-doctorate in Gynecology and Obstetrics, and professor at the Department of Physical Therapy of the Universidade Federal de São Carlos (UFSCar) – São Carlos, SP, Brazil.

²Physical Therapist, PhD in Biomedical Sciences, and professor of the Department of Physical Therapy of the Universidade Federal de Sergipe (UFS) – São Cristóvão (SE), Brazil.

³Physical Therapist, PhD in Public Health and Maternal Child Nursing, and professor of the Department of Physical Therapy of the Universidade Federal do Triângulo Mineiro (UFTM) – Uberaba (MG), Brazil.

⁴Physical Therapist, PhD in Physical Therapy, and professor of Physical Therapy at Universidade Cidade de São Paulo (Unicid) – São Paulo (SP), Brazil.

⁵Physical Therapist, PhD in Health Sciences, and professor at the Department of Management and Health Care of the Universidade Federal de São Paulo (Unifesp) – Santos (SP), Brazil.

⁶Physical Therapist, PhD in Public Health Nursing, and professor of the Department of Biomechanics, Medicine and Rehabilitation of Locomotor System of the Universidade de São Paulo – Ribeirão Preto (SP), Brazil.

dos quais a maioria é do sexo feminino, com média de idade de 39,6±7,4 anos. A maior parte dos docentes realizam atividades de pesquisa, ensino e extensão e possuem mestrado e doutorado, mas apenas 25,5% estão credenciados em programas de pós-graduação *stricto sensu*. Todos os cursos oferecem pelo menos uma disciplina obrigatória e em 54,6% dos cursos é oferecido estágio obrigatório na área de Fisioterapia em Saúde da Mulher. Os conteúdos ministrados e cenários de prática são diversificados, assim como o nome das disciplinas e estágios. Na maior parte dos cursos, os alunos aprendem a realizar a palpção vaginal no estágio e as habilidades práticas são treinadas de modo diversificado e em variados cenários de prática. O nome das disciplinas são variados, assim como a forma de treinamento das habilidades práticas ministradas.

Descritores | Fisioterapia; Saúde da Mulher; Docentes.

RESUMEN | Fue realizado un estudio transversal descriptivo en que se evaluó el perfil de los docentes y el contenido impartido en asignaturas de Fisioterapia en Salud de la Mujer en Instituciones de Educación Superior (IES) públicas de Brasil. Docentes de la área de Fisioterapia en Salud de la Mujer o áreas

asociadas de instituciones públicas brasileñas fueron invitados a llenar un cuestionario estructurado con cuestiones sobre datos personales, formación académica, actuación profesional y contenido programático de la asignatura. Los datos fueron analizados de forma descriptiva en el Programa SAS, siendo que participaron 51 docentes, de 44 cursos de Fisioterapia, de los cuales la mayoría es del sexo femenino, con media de edad de 39,6±7,4 años. La mayor parte de los docentes realizan actividades de investigación, enseñanza y extensión y poseen maestría y doctorado, mas sólo 25,5% estan acreditados en programas de posgrado *stricto sensu*. Todos los cursos ofrecen por lo menos una asignatura obligatoria y en 54,6% de los cursos es ofrecida pasantía obligatoria en la área de Fisioterapia en Salud de la Mujer. Los contenidos impartidos y escenarios de práctica son diversificados, así como el nombre de las asignaturas y pasantías. En la mayor parte de los cursos, los alumnos aprenden a realizar la palpación vaginal en la pasantía y las habilidades prácticas son entrenadas de modo diversificado y en variados escenarios de práctica. El nombre de las asignaturas son variados, así como la forma de entrenamiento de las habilidades prácticas impartidas.

Palabras clave | Fisioterapia; Salud de la Mujer; Docentes.

INTRODUCTION

According to the National Curricular Guidelines of Undergraduate Programs in Physical Therapy and Occupational Therapy (2002), the Higher Education Institutions (HEIs) can organize their programs in a diversified way and implement content and technologies that enhance the education of the Physical Therapy student, but must follow the proposed guidelines and ensure the generalist formation¹⁻³.

After graduation and complementary formation, the Physical Therapist professional can receive a title of specialist by the approval in a National Exam (Resolution no. 401 of August 18, 2011). In Brazil, Physical Therapy in Women's Health is a specialty recognized by the Conselho Federal de Fisioterapia e Terapia Ocupacional (COFFITO), through Resolution no. 372 of November 30, 2009 (DOU no. 228, Section 1, in November 30, 2009, page 101)⁴⁻⁶.

The education of undergraduates in Physical Therapy in the area of Physical Therapy in Women's Health must observe specific competences and attributions and include care assistance for women throughout their life cycle, including obstetrics and all gynecological, urological,

mastological and sexual aspects in the three levels of health care. However, there is no information so far about how this curricular content is taught and discussed in undergraduate programs in Physical Therapy in Brazil.

Therefore, the objective of our study was to evaluate the profile of faculty members and content taught in the programs of Physical Therapy in the subject of Physical Therapy in Women's Health in Brazilian Public High Education Institutes.

METHODOLOGY

This is a cross-sectional and descriptive study. Professors in the area of Physical Therapy in Women's Health or related areas of all public Higher Education Institutions of Brazil were contacted through electronic address or telephone between December/2014 and August/2015 and asked to respond to a structured questionnaire about personal information, academic formation, professional experience and subject syllabus. The average duration of response to the questionnaire was 15 minutes, according to a pilot study. The questionnaire was available online and

allocated in the website of Universidade Federal de São Carlos (UFSCar).

In cases where direct contact with the professor in charge was impossible, the course coordinator was contacted and asked to send the questionnaire to the professor in charge. In programs with more than one professor to teach this subject, all of them were requested to respond to the questionnaire.

This study was approved by the Human Research Ethics Committee of Universidade Federal de São Carlos, according to Opinion no. 902.408. All professors involved in the Physical Therapy in Women's Health subject who consented to voluntarily participate signed an Informed Consent Form (ICF), according to resolution 466/12 of the National Health Council. The ICF was available online, and the respondents who agreed to participate in the survey should, after reading it, click on the word "accepted" and save or print a copy.

Data were descriptively analyzed in the SAS Program, through frequencies, and in the cases of qualitative variables, data are arranged in mean \pm standard deviation.

RESULTS

Currently, there are 48 Public Universities in Brazil that offer the program of Physical Therapy (16 State, 28 Federal and four Municipal), and in six of them the program is offered in two campuses, resulting in 54 programs. There are 18 in the Southeast, 15 in the Northeast, 11 in the South, five in the North and five in the Central-West of Brazil.

Participated in this research 51 professors of 39 Brazilian Public Universities, who teach content related to the area of Physical Therapy in Women's Health. As five of these universities have two campuses with the Physical Therapy program, were considered 44 different programs for analysis.

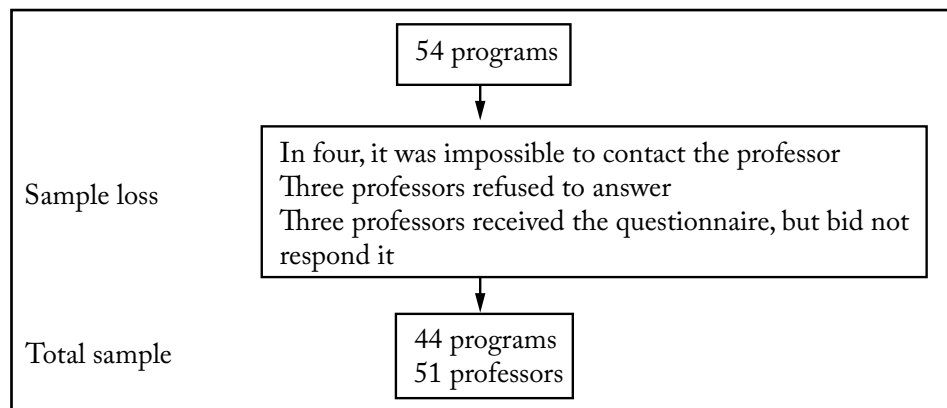


Figure 1. Sample composition flowchart

Faculty members' profile

Regarding the Universities where the professors who participated in this research, 21 (41.1%) are from the Southeast, 11 (21.6%) from the Northeast, nine (17.6%) from the South, four (7.8%) from the North and three (5.9%) from the Central-West region of Brazil. Thirty-seven (72.5%) professors are from Federal Universities, 12 (23.5%) from State Universities and two (3.9%) from Municipal Universities.

Age ranged from 26 to 58 years old, with average of 39.6 ± 7.4 years, being 49 (96.1%) women and two (3.9%) men. Graduation time ranged from 3 to 33 years, with average of 17.7 ± 8.5 years. Thirty-eight

(74.5%) professors worked in clinical practice in the area of Physical Therapy in Women's Health before teaching.

In Table 1 are presented data about the education of the professors and the percentage of professors who held the academic formation in the Women's Health area. It was noted that nine (17.6%) professors are specialists in Physical Therapy in Women's Health, after approval in the National Exam held by COFFITO.

Thirty-eight (82.5%) held a master's degree in Public Universities and eight (17.5%) in private universities. 93.9% of the Faculty members complete the doctorate in Public Universities. A post-doctorate was held abroad by two (50%) post-doctoral professors.

Table 1. Teaching formation in Physical Therapy in Women's Health

	Total	Women's Health
Specialists in Physical Therapy in Woman's Health	-	9 (17.6%)
Non-degree specialization	40 (78.4%)	17 (42.5%)
Improvement program	23 (45.1%)	12 (52.2%)
Academic master's degree	46 (90.2%)	31 (67.4%)
Doctorate	33 (64.7%)	22 (66.7%)
Post-doctorate	4 (7.8%)	4 (100%)

Table 2 comprises data about teaching performance. It is noted that almost all faculty members teach subjects and guide final term papers. Thirteen (25.5%) are registered in Graduate Programs.

Among the faculty members associated to Graduate Programs in Specialized Fields, eight (66.7%) are associated to CAPES Area 21 Programs (Physical Therapy / Rehabilitation Sciences / Functional Performance and Rehabilitation). The other professors are registered in programs of other health areas. Only five (9.8%) professors advise doctorate students.

Table 2. Teaching performance

Performance	Total
Teaches a subject	49 (96.1%)
Internship supervision	41 (80.4%)
Research	47 (92.2%)
Extension	43 (84.3%)
Advice of Final Term Paper	50 (98.0%)
Registered in Graduate Programs (Academic)	12 (23.5%)
Registered in Graduate Programs (Professional)	1 (2.0%)

The subareas in which professors declare themselves as the most active are: 46 (90.2%) in Obstetrics, 39 (76.5%) in Urogynecology, 32 (62.8%) on Mastology and 11 (21.6%) on Colorectal surgery.

Program profile

In every program there is a compulsory subject that embodies the content of Physical Therapy in Women's Health, with workload ranging from two to 12 hours per week. In 22 (50%) of the programs, the content is divided into more than one subject and the name of the subject vary between courses: the term Women's Health appears in the name of 24 (54.5%) subjects, Obstetrics in 22 (50%), Urology or Urogynecology in 15 (34.1%), Gynecology in 12 (27.3%) and Mastology in two (4.5%), among other terms.

Table 3 refers to the content taught in the subject. It is noted that there is a great diversity of topics covered.

Table 3. Content taught in the subject

Content of the subject	Total
Anatomy of the reproductive system and pelvic floor	40 (90.9%)
Pregnancy, childbirth and puerperium	40 (90.9%)
Urinary incontinence	40 (90.9%)
Physiology of Micturition	39 (88.6%)
Mastology	39 (88.6%)
Climacteric/Menopause	35 (79.6%)
Female Hormone Cycle	33 (75%)
High-risk pregnancy	33 (75%)
Scientific evidence in Women's Health	32 (72.7%)
Pelvic pain	31 (70.5%)
Sexuality	31 (70.5%)
Fecal Incontinence	30 (68.2%)
Lymphatic System	30 (68.2%)
Integral Attention to Women's Health Program	28 (63.6%)
Gynecological Cancers	27 (61.4%)
Neurogenic bladder and neurological urinary dysfunction	24 (54.6%)
Public policies related to Women's Health	20 (45.5%)
Levels of Attention to Women's Health	19 (43.2%)
History of Physical Therapy in Woman's Health	18 (40.9%)
Urinary dysfunctions in childhood	16 (36.4%)
Childcare	10 (22.7%)
Class associations	5 (11.4%)

The internship in this area is mandatory in 24 (54.6%) programs; 35 (79.6%) have an internship at the Women's Health area. The internships duration varies from four to 40 weeks. The number of students per internship ranges from two to 12, and in 17 (38.6%) programs, the number of students is between five and six students per group. The term Women's Health appears as internship name in 10 (22.7%) programs, Urology or Urogynecology in nine (20.5%), Obstetrics in seven (15.9%), Gynecology in five (11.4%), among others.

In 24 (54.6%) program internships, patients with urinary incontinence are assisted; 19 (43.2%) assist women in pre- and/or post-surgical breast cancer; 18 (40.9%) fecal incontinence; 17 (38.6%) pregnant women; 17 (38.6%) pelvic pain; 16 (36.4%) who have recently given birth, 16 (36.4%) sexual dysfunctions; 12 (27.3%) climacteric women and in 10 (22.7%) courses, the interns provide assistance to the parturient in the delivery room.

In Table 4 is described the material available for the theoretical-practical classes and internships.

Table 4. Content available for theoretical-practical classes and internships

	Practical classes	Internship
Electrotherapy equipment for pelvic floor	35 (79.6%)	22 (50%)
Vaginal Cone	34 (77.3%)	19 (43.2%)
Electrotherapy vaginal probe	32 (72.7%)	17 (38.6%)
Electrotherapy anal probe	32 (72.7%)	16 (36.4%)
Biofeedback/perineometer	29 (65.9%)	19 (43.2%)
Pelvis anatomical model	27 (61.4%)	-
Bandage	24 (54.6%)	13 (29.6%)
Anatomical model breast	22 (50%)	-
Electromyography	15 (34.1%)	5 (11.4%)

Table 5 refers to the strategies adopted by the professors for the training of assessment procedures during the practical classes. In the internship, students of 23 (52.3%) programs held vaginal palpation, 13 (48.2%) rectal examination; 10 (37%) perineal massage and nine (33.3%) held evaluation of prolapse during the professionalizing internship. Eighteen (35.3%) professors accompany students during vaginal palpation or utilization of intracavitary techniques:

Table 5. Training of students' practice during practical classes

	Functional evaluation of pelvic floor	Other physical therapeutic techniques
Among students	11 (25%)	36 (81.8%)
In patients	21 (47.7%)	27 (61.4%)
In volunteers	6 (13.6%)	9 (20.5%)
Anatomical models	22 (50%)	11 (25%)
Only theoretically	8 (18.2%)	1 (2.27%)
By video	20 (45.5%)	8 (18.2%)

Table 6 refers to the place in which the practical classes and internships are carried out. It is noted that the practical classes occur in various scenarios of practice and internships occur in Clinical School in 17 (38.6%) of the programs.

Table 6. Places in which the practical lessons and internships are taught

	Practice class	Internship
Laboratory	28 (63.6%)	-
Clinical school	22 (50%)	17 (38.6%)
Health center	18 (40.9%)	9 (20.5%)
Hospital	16 (36.4%)	13 (29.6%)
Maternity unit	15 (34.1%)	14 (31.8%)

DISCUSSION

This research enabled us to analyze the profile of professors and the content taught in the courses of

Physical Therapy in the area of Women's Health from Public Education Institutes in Brazil.

It was verified that almost all professors who act in this area hold a Master's degree and carry out teaching, research and extension activities. Few professors are specialists by COFFITO. A minority is registered as adviser on Graduate Programs, however, it is evidenced a relatively young faculty profile with good potential for teaching and for the production of knowledge in the area.

The National Curriculum Guidelines of Undergraduate Programs in Physical and Occupational Therapy¹⁻³ emphasize that the formation profile must be generalist. Regarding physical therapeutic knowledge, this document indicates the need for an approach related to "the semiologic, diagnostic, preventive and therapeutic resources that equipped the physical therapeutic action in different areas of activity and in different levels of attention." Physical Therapy in Women's Health is a specialty recognized by COFFITO and it proposes to launch a broad look on gender issues, incorporating the precepts contained in the program of integral attention to women's health. In addition to this vision, the practical performance of the Physical Therapist in this area involves their work at various levels of health care to women's health promotion, prevention and rehabilitation of highly prevalent conditions in the female population. This act includes the sub-areas of urogynecology (including sexuality), obstetrics and colorectal surgery.

It was possible to verify that most programs of the evaluated institutions have mandatory subjects in the area and professionalizing internship. An increasing number of randomized controlled tests and systematic reviews of the literature have demonstrated the efficacy of physical therapeutic treatment for the prevention and treatment of pelvic floor muscle dysfunctions^{7,8}, for the relief of pregnancy discomforts, to prepare for childbirth⁹, pain relief in labor and postpartum¹⁰, among several other examples that could be mentioned.

The increasing levels of scientific evidence in the area, coupled with the continental dimensions of Brazil, reinforce the need for training in the area that includes the internship in all Physical Therapy Courses, to provide a satisfactory generalist training. It was verified that the name of the disciplines and the internship in the area were largely variable. This possibly stems from the fact that by the year 2000 there was almost no talking about Physical Therapy in Women's Health, but rather in Physical Therapy in

Gynecology and Obstetrics. After the emergence of the first graduate programs in specialized fields that incorporated the name Physical Therapy in Women's Health and the creation of the Associação Brasileira de Fisioterapia em Saúde da Mulher (ABRAFISM) in 2005 there was the modification of the names of the subjects of Physical Therapy programs. The matter about the specialty's name regulated by COFFITO was discussed in several workshops held in Brazil.

Regarding the fields of work in the women's health area, the practice of treating pelvic floor dysfunctions, such as urinary incontinence, is more common in the internship. Despite the great emphasis given to the Physical Therapist's work on pelvic floor in the last years, it is worth noting that the performance in obstetrics is anterior and presents great relevance due to the prevalence of problems that Physical Therapists can prevent and treat with good levels of scientific evidence⁹⁻¹¹.

According to the Brazilian Ministry of Health¹², the prevalence of cesarean section is 56.7% in Brazil, 40% in the public sector and 85% in private services. Accordingly, when performed under medical indications, the cesarean section is a safe and essential surgery for mother and child health, however, when carried out without justification, it can add unnecessary risks without a clear benefit. For the World Health Organization, a cesarean rate that could be considered as a reference for the Brazilian population is between 25% and 30%.

Based on these indices, the Brazilian Ministry of Health launched in 2016 the National Guideline on Labor Assistance¹³ as a way to systematically synthesize and evaluate the scientific information available on the most common practices in labor and birth care, providing support and guidance to all involved in the care, to promote, protect and encourage vaginal delivery.

The Physical Therapist is a qualified professional to compose the obstetric team and offers assistance to the parturient, improving her mobility (coordination of the muscles action, functional movements for each expansion phase, stimulus for the mother participation during labor)¹⁴ and using non-pharmacological methods of pain relief during labor, e.g., Transcutaneous Electric Nerve Stimulation (TENS), hydrotherapy, cryotherapy, kinesiotherapy, massage therapy and breathing techniques¹⁵⁻¹⁷. According to Chaillet et al.¹⁸, the use of non-pharmacological methods is associated with a reduction in the number of cesarean sections and, according to Mafetoni and Shimo¹⁷, the parturients' mobility promotes the reduction of pain and duration of labor.

In this study, it is noted that some internships include prenatal care, however, in relation to childbirth care, the lowest frequency was found among all the topics in the women's health area. This fact verified in our study may reflect the limited job market for physical therapists in maternity hospitals in Brazil and the lack of physical therapists who work in this field.

The student's low insertion in the maternity unit during the undergraduate programs also evidences their small insertion in different levels of assistance in Women's Health. Clinical schools are the main place of care in internships, that probably offers the most attendances of secondary level, since the evaluation and treatment of Pelvic Floor Muscles (PFM) disorders requires an adequate private environment and some specific resources not available in basic care such as electrotherapy. A limited number of programs pointed to primary health care as the internship area that could involve the attendance to low-risk pregnancy, prevention of pelvic floor dysfunctions and health promotion (e.g., family planning). It is worth mentioning that the PFM training presents the highest level of scientific evidence in the treatment of female Urinary Incontinence (UI)^{7,8} and the physical therapist is the reference professional in the implementation of training programs at the primary health care level. One limitation for this analysis is the fact that some programs have specific internships in primary health care/community health that may not have been reported by the professors of Women's Health area.

It seems that the theoretical basic training in the area has been contemplated, since we can see that the main themes for a generalist physical therapist to develop their work in the area of women's health are present in almost all HEI included in our study. The most common themes were anatomy and physiology of the female reproductive system; pregnancy, childbirth and puerperium; and urinary incontinence, followed by mastology and physiology of micturition. Among the less cited themes are the public policies related to women's health, history of physical therapy in women's health, urinary dysfunction in childhood, childcare and class associations. Once again, these results indicate that the physical therapist is usually little involved in public policy programs in the area of women's health.

Another limitation for this study is that the results cannot be generalized for all Physical Therapy programs in Brazil, since only public HEI programs were considered. In addition, this is the first study that

evaluates the profile of professors who teach subjects related to physical therapy in women's health and the content taught. In addition, there was a good response rate of the questionnaires and these results are representative of the public HEI professors in Brazil. This study can contribute to the formulation of recommendations related to undergraduate education in the area. It is suggested that further investigations seek to deepen the knowledge related to the methods of training practical skills and ethical issues involved in teaching in the area.

CONCLUSION

It was verified that the majority of the professors are young, female and carry out teaching, research and extension activities. All courses offer mandatory subjects in the area and most of them offer mandatory internship. The name of the subjects vary as well as the form of training of the practical skills taught.

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