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Strategic planning based on the profile and prognosis of physical therapy services in São Miguel da Boa Vista

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Josilene Souza Conceição Kaminski
Doctor student in Public Health Administration and Management at Columbia del Paraguay University of Asunción, affiliated with the Inter-American Institute of Education and International Development, Rio de Janeiro.

Viviane Jacintha Bolfe Azzi
Professor and coordinator of the Physical Therapy Course of the University of the West of Santa Catarina (UNOESC), Campus São Miguel do Oeste São Miguel do Oeste.

Aline dos Santos Moreira de Carvalho
Doctor student in Education at Columbia University of Paraguay in Asunción, affiliated with the Inter-American Institute of Education and International Development, Rio de Janeiro.

ABSTRACT
Introduction: Multidisciplinary teamwork provides a better operationalization of the principles of the SUS. The integration of the physiotherapist into the family health strategy team will enable greater results in the field of public health. Studies that identified the profile and prognosis of patients assisted by physiotherapy in basic health units are scarce. Objective: To identify the profile and prognosis of patients assisted in physiotherapy in the town of São Miguel da Boa Vista/Santa Catarina. Development: This is a cross-sectional study, delimited to the health unit of São Miguel da Boa Vista/SC. Data were collected from physiotherapeutic treatments carried out over 8 years. Data collection took place through medical records, covering socio-demographic, psychological and psychological issues. Results: 8576 individual consultations were carried out, of which 63% were female and 37% were male. The predominant age group was between 41 and 60 years (45% of attendances). Most were farmers and housewives (25% each). 34% of patients had diagnoses of spinal disorders, of which 63% had low back pain. 54% of patients had complete improvement of the clinical picture and 2% had no improvement. Final Considerations: The highest prevalence of attendances was of patients with musculoskeletal disorders of the spine (low back pain). In order to try to minimize these high incidences, a comprehensive base work is necessary, acting, mainly, in the preventive plan and not only in rehabilitation. The strategic planning based on this survey was the creation of Pilates Groups for patients with low back pain.

Keywords: Unified Health System, Physiotherapy, Spine, Public health, Backache.

1 INTRODUCTION

In 34 years of Unified Health System (SUS), Primary Health Care (PHC) brought an increase in the integration of health promotion, protection and recovery actions, supported by epidemiological diagnoses, professional training and teamwork processes (Santos, 2018).

In the context of interdisciplinary teamwork in the SUS, the physiotherapist came to add actions that meet the real needs of the population (Vasconcelos et al., 2007), seeking a greater resolution of the cases served.

The The origin of Physical Therapy in Brazil did not have a tradition linked to PHC, because it had the purpose of rehabilitating people injured from the great wars, in work accidents, or by diseases

arising from precarious sanitary conditions (from Nascimento & de Campos Oliveira, 2010). However, among its fundamental responsibilities, according to the Code of Ethics and Deontology of Physical Therapy of the Federal Council of Physical Therapy and Occupational Therapy (COFFITO), consists, in addition to rehabilitating, actions such as preventing and promoting health, always with a view to quality of life, acting in line with the national health policy, striving to improve the quality standards of Physical Therapy services, with regard to public policies (Resolution No. 424, 2013) .

Physical therapy advances as a science, changing the unique paradigm of rehabilitation to also act in prevention, this being a new scenario for the future (Aroeira, 2022)nevertheless the possibilities of action of the physiotherapist move towards its adaptation to the public health policy recommended by the SUS, where this professional trained to act in the individual sphere with a rehabilitative focus, to institute a praxis that involves integrality and the tools of care in the territorial and collective context becomes an enormous challenge (Padilha da Rocha et al., 2020).

To think about prevention and health promotion, it is necessary to initially perform the situational diagnosis, to obtain epidemiological data in health. Few scientific studies published in good scientific evidence bases have defined the profile of SUS users of rehabilitation centers, and evidence on the most prevalent pathologies and the prognosis/evolution of these cases is even scarcer.

Thus, the knowledge of the real needs of the population in the rehabilitation centers enables the basis of adjustment processes, subsidizing the better direction of management and public health policies. The elaboration of promotion and prevention conducts based on the survey of the profile and prognoses of patients who seek such services will enable the definition of priorities and planning of actions to improve the quality of Primary Care, allocation of resources and evaluation of the programs implemented, contributing to a more effective management of the cases attended.

In view of the above, this study aimed to identify the profile and prognosis of patients treated at the physiotherapy sector of the city of São Miguel da Boa Vista/Santa Catarina.

2 METHODS

This is a cross-sectional, descriptive, multi-method study limited to the Romano Cassol Health Unit of São Miguel da Boa Vista/Santa Catarina. The population was composed of all individuals who were individually cared for in physical therapy over 8 years (2009, 2010, 2011, 2014, 2015, 2016, 2018, 2019).

The inclusion criteria were all handwritten medical records (prepared by the physiotherapist of the sector) that were eligible and that included the signature of this professional, being excluded medical records with incomplete registration data and without the proper signature.

The collection of sociodemographic and clinical data was performed in handwritten medical records previously developed by the physiotherapist of the health unit, with quantitative and qualitative approaches.

The data obtained with the identification form (sociodemographic and clinical data) were analyzed through descriptive statistics (mean, minimum and maximum values, absolute and relative frequency). To describe the profile according to the variables under investigation, tables of frequency and proportion of categorical variables were constructed, by means of relative (%) and absolute (n) frequency.

Statistical analysis was performed using the *Statistica lPackage for the Social Sciences* (SPSS), version 20.0.

This research was approved by the Ethics Committee on research with human beings under opinion number 5,667,167 of the University of Oeste Santa Catarina.

3 FINDINGS

A total of 8576 individual consultations were carried out, of which 63% were female, 50% included farmers and housewives and 45% aged between 41 and 60 years. (Table 1).

Regarding the clinical diagnoses referred, 264 (35%) patients were diagnosed with back problems, 229 (30%) with other cases (arthralgias, respiratory problems, among others), 151 (20%) without clinical diagnosis, 108 (14%) postoperatively. (Figure 1). Among the cases of patients with back problems, 63% had low back pain, 25% neck pain and 12% back pain. (Figure 2). Among the postoperative periods, the majority were wrist and hand 31 (29%), followed by knee/leg 21 (19%) and shoulder 18 (17%). (Table 2).

Regarding the prognosis, 408 (54%) patients had total improvement of the clinical picture, 137 (18%) partial improvement, 89 (12%) were referred (to groups or return to the clinician for reevaluation) and 13 (2%) without improvement. (Figure 3). Regarding the number of sessions performed, 453 (63%) performed from 1 to 10 sessions. (Table 2).

Table 1- Sociodemographic Results.

GENDER									
	2009	***2010***	***2011***	***2014***	***2015***	***2016***	***2018***	***2019***	**TOTAL**
Male	33	27	34	22	31	34	43	53	277 (37%)
Female	58	44	49	38	49	46	88	94	466 (63%)
Total	91	71	83	60	80	80	131	147	743 (100%)
AGE									
	2009	***2010***	***2011***	***2014***	***2015***	***2016***	***2018***	***2019***	**TOTAL**
0- 10	3	4	3	2	3	0	1	1	17(2%)
11- 20	4	5	16	3	4	4	9	6	51(7%)
21- 30	8	7	9	9	5	9	12	12	71(10%)
31- 40	10	15	11	13	9	11	16	21	106(14%)

41- 50	30	12	18	14	23	16	28	31	172(23%)
51- 60	16	15	12	11	19	23	29	38	163(22%)
61- 70	10	10	5	3	7	11	15	19	80(11%)
71- 80	9	2	8	4	8	4	16	15	66(9%)
81- 90	1	0	1	2	2	2	6	4	18(2%)
PROFESSION									
	2009	***2010***	***2011***	***2014***	***2015***	***2016***	***2018***	***2019***	**TOTAL**
Farmer	40	17	26	31	25	31	22	27	219(25%)
Retired	17	16	15	5	18	17	33	32	153(18%)
Woman-of-housewife	36	21	22	20	8	11	44	56	218(25%)
Student	7	6	16	5	3	5	9	6	57(7%)
Civil servant	4	3	5	6	12	11	28	20	89(10%)
Professor	4	3	4	4	0	1	2	4	22(3%)
Other	12	14	12	10	14	7	11	25	105(12%)

Source: the authors

Table 2- Results of clinical data.

POST-OPERATIVE									
	2009	***2010***	***2011***	***2014***	***2015***	***2016***	***2018***	***2019***	**TOTAL**
Shoulder OP	3	3	0	0	0	3	4	5	18(17%)
OP Elbow fracture	0	0	4	0	0	0	0	2	6(5%)
Wrist/hand PO	1	2	2	4	3	1	8	10	31(29%)
Hip/femur OP	0	0	2	2	1	2	2	3	12(11%)
PO Ankle and foot	2	0	1	1	2	1	4	5	16(15%)
OP of knee and leg (tibia and fibula)	4	3	4	1	0	5	1	3	21(19%)
OP head and spine	0	0	0	0	0	0	0	4	4(4%)
NO CLINICAL DIAGNOSIS									
	2009	***2010***	***2011***	***2014***	***2015***	***2016***	***2018***	***2019***	**TOTAL**
Low back pain/neck pain/back pain	7	5	17	5	1	4	2	1	42(28%)
Diffuse pains throughout the body	0	0	0	0	0	3	0	2	5(3%)
Painful shoulder	2	2	3	4	6	4	6	11	38(25%)
Pain in the elbow and forearm	0	1	0	0	0	2	0	1	4(3%)
Wrist and hand pain	0	3	0	1	0	5	1	2	12(8%)
Arthralgia in the knees	1	0	6	2	4	4	0	5	22(15%)
Pain in the feet and ankles	2	4	0	1	1	2	1	3	14(9%)
Other (sedentary lifestyle, stroke, incorrect posture, UI)	0	1	1	0	0	1	6	0	9(6%)
Hip pain	0	0	0	0	0	0	0	5	5(3%)
N. SESSIONS HELD PER PERSON									
	2009	***2010***	***2011***	***2014***	***2015***	***2016***	***2018***	***2019***	**TOTAL**
1 to 10	63	29	43	34	47	55	89	93	453(63%)

11 to 20	22	19	31	18	16	14	19	38	177(25 %)
21 to 30	4	3	10	6	8	3	10	7	51(7%)
31 to 40	0	0	2	0	5	3	4	4	18(2%)
41 to 50	0	0	4	2	0	3	2	2	13(2%)
over 51	0	0	0	1	2	2	2	1	8(1%)
Total number of sessions	972	816	923	786	1124	1027	1298	1630	8576

Source: the authors

Figure 1

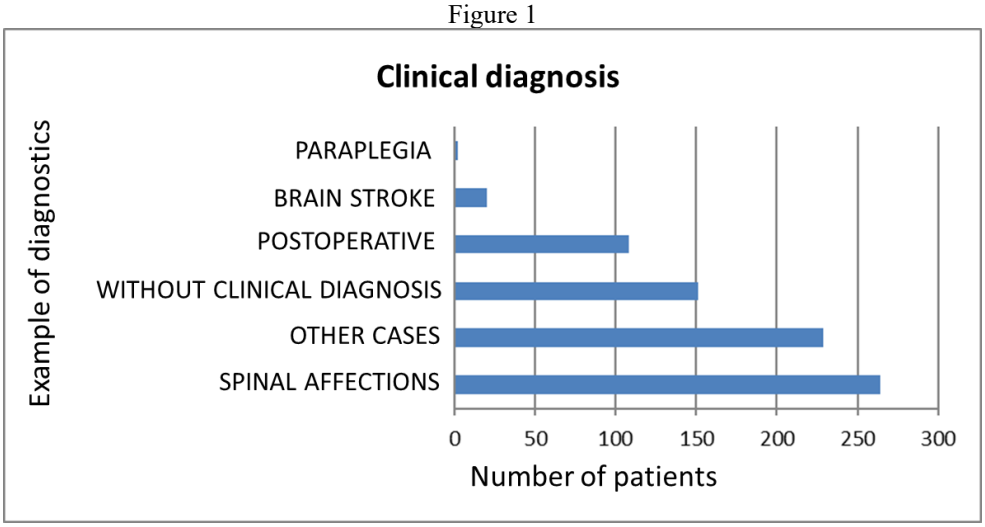


Figure 2

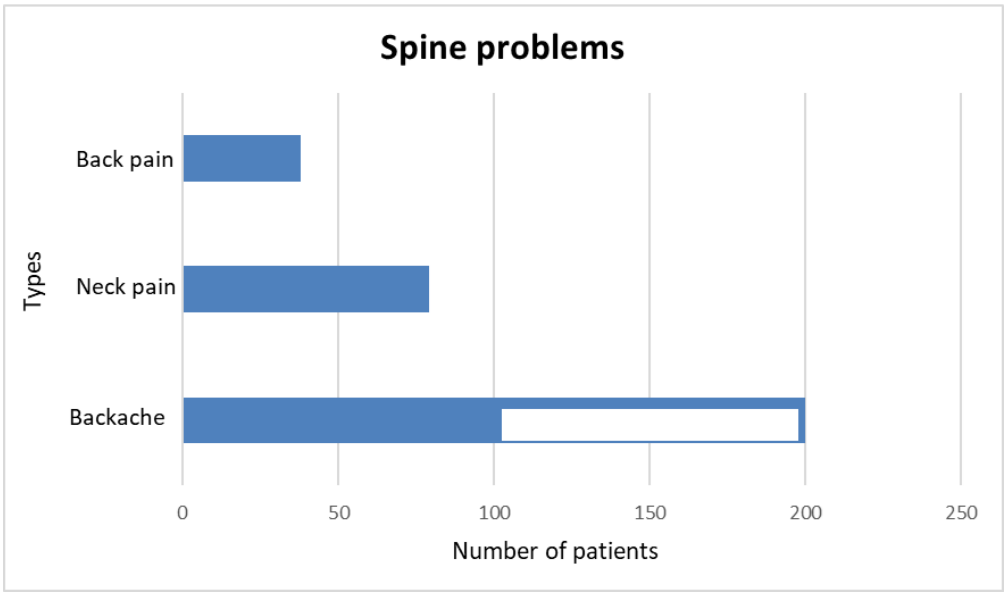
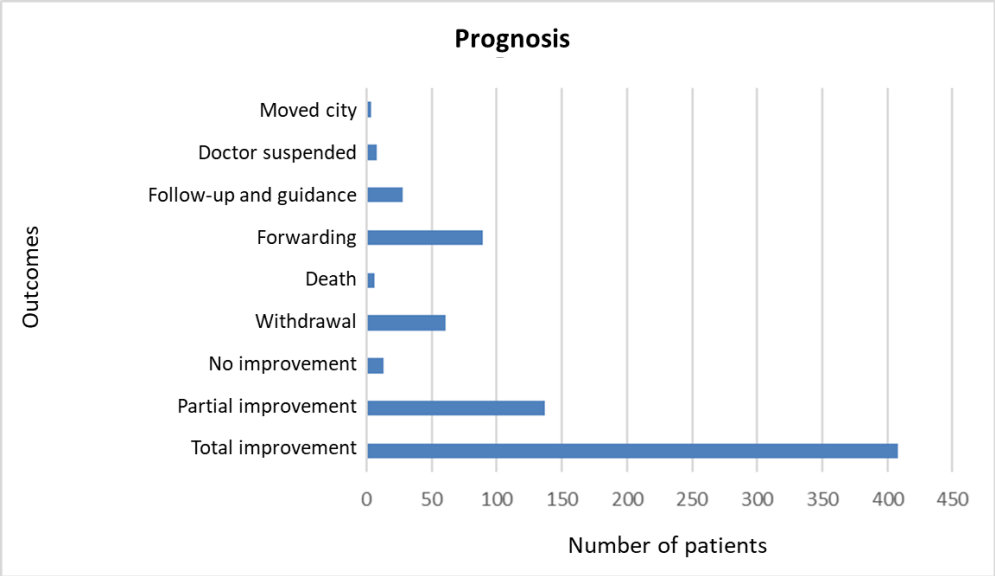


Figure 3



4 DISCUSSION

In the Brazilian context, it is estimated that 34.3 million people aged 18 years or older have chronic back problems, representing 21.6% of the population sample, according to the National Health Survey (IBGE, 2020). A recent survey released by Ministry of Labor and Social Security, which analyzed the ranking of the 5 most prevalent applications for sickness benefit, found that 3 of these were for problems related to the lumbar spine (Fernandes et al., 2020).

The Low back pain is increasingly becoming a major public health problem with a global lifetime prevalence estimate of 70-85% (Kebede et al., 2019). These data corroborate the results of this research, in which 34% of the patients referred to physiotherapy came with diagnoses related to spinal complications, of these, 63% had low back pain.

Low back pain has been the leading global cause of disability and absenteeism at work, associated with huge socioeconomic expenses and loss of production (Hartvigsen et al., 2018). Globally, approximately 149 million days worked are lost annually due to low back pain, resulting in a considerable amount of production loss (Meucci et al., 2015). This condition causes temporary suspension at work, as well as premature retirement, generating high cost for society and health systems (Petreça et al., 2017; Rodrigues et al., 2019). Unfortunately, in this work we do not obtain information related to the absenteeism. Such data will be added in the medical records.

The predominant age group in this study (41 to 60 years), mostly women (63%) and high prevalence of low back pain, are in line with the data of a recent systematic review, in which the highest prevalence of low back pain occurred in the age group older than 40 years and in females (Valadares et al., 2020).

Most of the consultations were from patients who were farmers and housewives (25% each). Notably, in the literature, there is evidence that the highest prevalence of this disorder occurs in certain

working populations, including agriculture, if there is an association of unstable postures, excessive workload and repetitive work (Kang et al., 2016).

Since PHC is the gateway and coordinator of care within the scope of the SUS, having the function of welcoming the most common problems of a community, it should be able to meet health demands in a dynamic and expanded way, where despite being considered a less complex level, the estimated problem-solving capacity is 80% (Starfield, 2006). There is no point in the SUS being universal, egalitarian, integral, decentralized and regionalized, if there is no **resolvability** Effective. A good problem-solving capacity was obtained with the physiotherapeutic consultations, reaching 54% of the patients who reported total improvement of the clinical picture.

Knowing that one of the highest rates of care and referrals is due to back problems, we see the need to seek strategic actions to cope with this type of intercurrence, reformulating new agreements of flows and protocols.

The integration of Qualified physiotherapist in primary health care can occur independently in the care of patients with musculoskeletal problems, taking the burden off the physician-centered model (Bodenheimer et al., 2021). A 2014 systematic review found that patients seen directly by physical therapists, with no need for medical referral, had better outcomes (average less pain and lost days of work), lower costs, higher patient satisfaction, fewer medications, and no increased risk of harm (Ojha et al., 2014).

In this perspective, the actions of physiotherapy can contribute to the reduction of medication consumption, stimulating group membership and the formation of social support networks. These data are reaffirmed with the problem-solving capacity that was obtained in the individual consultations in this study, in which 54% of the patients had total improvement of the clinical picture, 18% partial improvement and 2% without improvement. It is also important to note that 63% of the patients underwent only up to 10 physiotherapy sessions. These are data that motivate us to seek new resources in order to obtain even better results.

From the knowledge of the sociodemographic and health indicators (clinical), provided through medical records, it allowed us to identify the situational diagnosis of the citizens served by the physiotherapy sector of this municipality and allowed the elaboration of a strategic planning, aiming at improvements in local health management and the better direction of public health policies. The strategic action was the creation of a Pilates Group for patients with back problems.

Such a strategy was designed from the excellent scientific evidence that showed satisfactory results of the Pilates method both in the prevention and rehabilitation of patients with painful symptoms of the spine (Conceição & Mergener, 2012; da Costa et al., 2012; Hayden et al., 2021; Menacho et al., 2010).

The Pilates method advocates the improvement of agonist and antagonist muscle relations, favoring the work of the stabilizing muscles of the spine, thus presenting excellent results in the treatment of pain arising from the spine (Conception & Mergener, 2012), being proven by means of systematic review with meta-analysis of randomized controlled trials that Pilates was more effective than other types of exercise treatment in reducing pain intensity and functional limitations in patients with chronic low back pain (Hayden et al., 2021).

Data obtained from this study allowed the orientation of the process of negotiation and contractualization of goals and commitments between teams and municipal managers, as well as between this and the other spheres of SUS management, in addition to subsidizing the definition of priorities and planning of actions, aiming at improving the quality of primary care.

This study has some limitations. We did not collect data on tobacco use, alcohol, absences from work and used self-report to define the prognosis. In contrast, the positive points were the large sample size and the results themselves, which provide the basis for future research.

5 CONCLUSION

The profile of patients seen in physical therapy in the city of São Miguel da Boa Vista/Santa Catarina showed a higher prevalence of female patients, aged between 41 and 60 years, farmers and housewives. Musculoskeletal disorders in the spine (low back pain) represent the largest proportion.

Nowadays, these complications have been considered public health problems. To try to minimize these high incidences, despite the prognosis of improvement of more than 50% of the clinical picture with physiotherapy, a strategic planning was necessary, which consisted of the implementation of Pilates groups, acting, initially, only in the rehabilitation plan, aiming at a better problem-solving capacity, less use of drugs, expansion of care and an adaptation to the public health policy recommended by the SUS.

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