Microrregulation of access to the care network in physiotherapy: strategies for improving the care flow in a secondary care service

Microrregulação do acesso à rede de atenção em fisioterapia: estratégias para a melhoria do fluxo de atendimento em um serviço de atenção secundária

Microregulación del acceso a la red de atención en fisioterapia: estrategias para mejorar el flujo de atendimiento en un servicio de atención secundaria

Michele Lacerda Pereira Ferrer¹, Alaine Sousa da Silva¹, Jaqueline Regina Kaik da Silva¹, Rosimeire Simprini Padula¹²

ABSTRACT | We characterized a physiotherapy service of the city. The profile of patients on the waiting list was assessed and identified to propose strategies for microrregulation on the access to secondary-level physiotherapy to improve the resolution rate of the system. This is a cross-sectional study carried out with the physiotherapy team of the secondary care and 70 patients on the waiting list. The team was interviewed and patients were assessed and forwarded to the different care points according to their needs. The information obtained from the interviews of professionals and triage of patients was used to propose improvements and greater resolution. The secondary care physiotherapy team has a high demand. The origin of the referrals was first from Orthopedists/Traumatologists (88%), and clinical diagnosis of Osteoarthritis (36%). After the evaluation, 72% of patients did not need the complexity of a secondary physiotherapy service. The problems found were related to low resolution on primary health care, lack of coordination for physiotherapy teams, lack of dialogue with other professionals, and screening and care criteria in the secondary level of care. The lack of understanding of the network organization of services reflected in a long waiting list for secondary physiotherapy. From the identification of the main problems, strategies indicated were the screening by the primary care staff and medical professionals of the specialized care; and coordinator for improving dialogue between the care points of physiotherapy.

Keywords | Physical Therapy Modalities; Unified Health System; Primary Health Care; Secondary Care.

RESUMO | O objetivo deste estudo foi caracterizar um serviço de fisioterapia municipal, avaliar e identificar o perfil dos pacientes em lista de espera e propor estratégias de microrregulação do acesso ao atendimento fisioterapêutico em nível secundário para melhoria da resolutividade do sistema. Trata-se de um estudo transversal realizado com a equipe de fisioterapia de atenção secundária e 70 pacientes em lista de espera. A equipe foi entrevistada e os pacientes foram avaliados e encaminhados para os diferentes pontos de atenção segundo suas necessidades. As informações obtidas com as entrevistas dos profissionais e triagem dos pacientes foi utilizada para propor melhorias e maior resolutividade ao serviço. Observou-se que a equipe de fisioterapia de atenção secundária tem alta demanda de atendimento. A origem dos encaminhamentos foi primeiramente de ortopedistas/traumatologistas (88%) e diagnóstico clínico de osteoartrose (36%). Após a avaliação, verificou-se que 72% dos pacientes não necessitavam da complexidade de um atendimento fisioterapêutico secundário. Os problemas encontrados foram relacionados à baixa resolutividade na atenção primária, à ausência de coordenação entre as equipes de fisioterapia, à falta de comunicação com os demais profissionais, e aos critérios de triagem e atendimento no nível secundário de atenção. A falta de compreensão sobre a organização da rede de serviços repercutiu em uma longa lista de espera para atendimento fisioterapêutico secundário. A partir da identificação dos principais problemas, as estratégias indicadas foram a triagem pela equipe de atenção.
INTRODUCTION

SUS regulations lead to the promotion, protection and recovery of health, considering the unique characteristics of the organization and operation of health services. The service structuring occurs from the diagnosis of territorial reality, by means of Basic Health Units (UBS) or the Family Health Strategy (ESF), building an entrance way to the system (Primary Health Care – APS), and is an essential component for the organization of the health care model. Since APS focus in resolution, it is expected that about 80% of the population problems are solved by it. Cases that require more specialized care should be directed to points with higher density technology that make up health care networks (RAS). To meet the different needs of users, the integration between the various points of care is required, with unique technological procedures.

To strengthen the APS as orderer of RAS, aiming at the improvement of the quality and resolution, Centers of Support to Family Health (NASF) were created linked to the ESF, which provided for the insertion of physical therapists. NASF works with designated managing technology with matrix support, which is completed with the work process with ESF reference teams, performing actions such as aid to teams in the qualification of referral to other points of care (micro-regulation) establishing criteria and strategies for improving care flow and efficaciousness in different points of RAS care, from APS, as well as assisting teams to increase the ability of care in APS.

At the point of specialized care, there are the interventions and medium-complexity procedures performed in hospitals or clinics including specialized medical services and emergency therapeutic care. The medium-complexity care is currently the “bottleneck” of the health care system with problems related to quality of service, underfunding and poor integration with other complexity levels of the system, which makes hinders integral care to the patient of SUS. Although there are little theoretical references, the problems of outpatient physiotherapy services on secondary care are not different from others. The difficulty of access to the secondary level, with patients with specific needs for this service, are most neglected by pent-up demand and long waiting list for care. Thus, the changes in the epidemiological profile of the Brazilian population with the triple quantity of diseases characterized by the coexistence of infectious and parasitic diseases, external causes and non-transmissible chronic diseases.
generate impact on the management of health systems. To this end, the integration of health services and professional training to increase resolution had become indispensable, which caused the physical therapist to obtain a space on the team, new responsibilities, and insertion in different points of care.

In this sense, physiotherapy, as a field of knowledge and practice, should be able to deal with health promotion and prevention of diseases, in addition to care, working in RAS in order to assist in the coordination of health care. However, joint effort is necessary, because the organization of health services in coordinated networks of care allows the completeness of the actions to be implemented, ensuring equity and access to other services of the system.

With this challenge, the need arose from this study to understand the cause of a large number of patients on the waiting list in a secondary care center of physiotherapy (CF), this problem generated many complaints from users and questions from managers on the efficaciousness of the service. The hypothesis was that communication difficulties and the role of physiotherapy in each level of care still were unclear to the team.

Thus, the goal was to characterize the physiotherapy service in the city, identify the epidemiological profile of patients who were on the waiting list of the secondary care, make the necessary referrals and, from this, diagnose and propose solutions to the whole physiotherapy team for the reorganization of the flow of referral to the physiotherapeutic services available in the city.

**METHODOLOGY**

This is a cross-sectional study, carried out with the staff of the only Physiotherapy Center (CF) of the city of Bragança Paulista, state of São Paulo, Brazil, with patients who were up to a year on the waiting list for the service.

After approval of a research project by the Research Ethics Committee of the São Francisco University (Proc. N. 0228.0.142.000/09), the study was divided into three stages and lasted 6 months. In the first stage, meetings were held with members of the Department of Health to meet the health services of the city, and with the team of physical therapists who worked on APS to understand the dynamics of the referrals. Information about the operation of physiotherapy services of the city was obtained through individual meetings and with the team of physical therapists, and also with the Coordinator (not physical therapist) of the team with the Department of Health of the city. Then, meetings with the CF team were held (secondary care) to understand the screening and care procedures of users outside or on a waiting list. In the second stage, the physiotherapy professors and scholars of the Physiotherapy Program (External Staff) performed the screening, evaluation, and referral of patients on the waiting list. Finally, the team drawn up a report and organized the project wrap-up meeting with the physiotherapy team of the CF and the coordinator of the Department of Health to discuss and propose solutions to the service.

The screening of the waiting list was performed with the help of the Secretary of the CF who had the registration of patients on the waiting list and scheduled evaluations. This first contact with the information of patients enabled the identification of the population profile, source of referrals, clinical diagnosis, gender, age, occupation and previous achievement of the physiotherapeutic treatment.

Users who confirmed attendance to the care process were informed about the objectives and procedures of the research, and signed a free and informed consent form. The organization of the care was made according to the waiting list order, and patients who attended were evaluated and characterized according to their pathologies and needs.

To evaluate the patients, Physical Examination and Anamnesis Records were used. The Anamnesis Records tried to identify the main complaint, pain complaints, physical and functional limitations and current and past medical history. The Physical Examination consisted of evaluation of motion range (Carci Goniometer), muscle strength testing through manual force test (graduation from 0 to 5 points), analysis of the length and asymmetry of members (tape measure), physical and functional examinations and special tests according to the clinical and functional diagnosis, history and needs of each patient.

After the evaluation, the diagnostics of physiotherapy of every patient was made and various procedures were performed, such as: household exercise guidelines, postural guidelines, guidelines on the best way to perform daily activities and/or work activities, cryotherapy, prescription of insoles, and/or directing these patients to primary care in groups, or those with acute conditions or functional complications would remain on the waiting list for care in the CF. All the procedures for referral to the physiotherapy teams (UBS/ESF and CF) were performed through opinions.
with physiotherapy diagnosis and conducts adopted by the external team for each patient. The patients also received the referral sheet, and were instructed about the care locations.

The diagnosis of problems in efficaciousness was composed by the physiotherapy team meetings and coordinator with professors and students of the project, patient reports, clinical and physiotherapy diagnoses. The proposition of solutions was based on the guidelines of SUS\textsuperscript{1} and RAS\textsuperscript{2}, the priorities and projects of the physiotherapy team according to the proposals of the care teams of the city.

The data recorded were transcribed and stored in the SPSS software version 22.0 for frequency analyses.

RESULTS

The city of Bragança Paulista had 26 primary care units, including UBS/EACS/ESF/PAD with coverage of 36\% of the city. Physiotherapy services were allocated in the Physiotherapy Center (CF), in APS with NASF I and in PAD (Home Care Program).

Five physical therapists of CF (who have passed the civil service examination) assisted each, on average, 8 patients/day. Two patients were assisted every 30 minutes – a total of 40 cares a day. The physical therapists hired for the ESF make up the NASF I team (currently 5 NASF teams, with 5 professional physical therapists), and organized activities with objectives directed to the promotion and prevention of incapacities, through group assistances, and occasionally, individual assistances. Group assistances were for patients with chronic conditions (osteoartroses and back pain), and guidance to pregnant women and caregivers. The groups were formed according to the demand of each unit. The individual assistance occurred at times reserved for the evaluation of new cases. The home visits were for bedridden patients and domiciliary exercises oriented to caregivers.

Secondary-level assistances took place in CF for all patients referred for rehabilitation from all services of the city (APS services reference, specialized care and hospital care). The assistances were mostly individual, with priority to patients with acute conditions, some timetables for specific groups were reserved (posture, osteoarthritis, AVE). Patients with chronic diseases, in case of non-availability of vacancies, were referred to the waiting list, without intake by the service. We identified 240 patients on the CF waiting list and evaluated 70 patients (29.1\%). The remaining patients were contacted, but, at the time of screening, they did not attend the assistance (without justification) or explained that there were improvements on the conditions. The patients had an age range of 54.96±17.04 years, with maximum age of 85 years and minimum of 11 years, with prevalence (66\%) of the female gender, and a large percentage aged less than 60 years (43\%). Regarding occupation, 44\% worked at home, 19\% were retired and 19\% had several professions (plumber, receptionist, hair stylist, engineer, construction worker, nurse, machinist, locksmith). The clinical diagnoses of patients on the waiting list (Figure 1) were mostly Osteoartroses (36\%), Back Pain (21\%) and Tendinitis (15\%).

![Figure 1. Clinical diagnoses of patients (N=70) on the waiting list in the Physiotherapy Center](image-url)
A large number of referrals was carried out by the centers of medical specialties of the city, particularly for Orthopaedics (88%), without care for the tiering of the physiotherapeutic care (Figure 2).

The external physiotherapy team identified that 50 patients (72%) did not need the complexity of a secondary physiotherapy at the time (Figure 3). From the evaluated patients, 28% remained on the waiting list for care in the CF, either individually or in group. All patients received guidance. 56% received (occupational or home) guidance and were referred for follow-up for physiotherapy in the primary care; 16% (n=11) received guidelines and were referred to group therapy care in primary health care in the city (Figure 3).

The screening for cares and meetings with the physiotherapy team allowed a diagnosis of the problem as well as the actions proposed to the team (Box 1).

The problems identified were: intake of the patient, diagnosis, and referrals flow by physical therapist of APS and other professionals (Box 1).

Figure 2. Origin of the referrals of patients (N=70) for the Physiotherapy Center

Figure 3. Referrals made after the screening of the patients (N=70) on the waiting list in the Physiotherapy Center of the city
DISCUSSION

The characterization of municipal services showed low coverage of APS in the municipality, however there was a significant number of physical therapists (n=5) in teams of NASFs I. The Ministerial Decree that redefines the parameters of NASF I binds a minimum of 5 and a maximum of 9 ESF and/or teams of Primary Care. As we have seen, the physical therapist has high priority in the composition of NASF by municipal management, which is acceptable according to the implementation guidelines by the Ministry of Health.

The profile of patients evaluated were of adults and older adults, mostly women. The predominance of women care for physiotherapy services has been common. The current health policies directed mostly at women, and the increased exposure to risk factors of diseases due to various social roles that they exercise can be determining factors; as well as the increased longevity observed in the female gender, and the fact that they use the health service more than men.

The higher prevalence of osteoarthritis supports evidence that musculoskeletal disorders are the most common chronic condition that can present periods of exacerbation and often cause disability and increase of health costs. The care flow in the CF, secondary level, is influenced by referrals to professionals of other areas, especially Orthopedists, and for elderly patients with chronic and degenerative diseases such as osteoarthritis. The lack of communication or integration between the physical therapist of the basic care (NASF) and the CF professionals, even among patients with ESF coverage, have also been responsible for the large number of referrals. The reasons for these referrals must be related to the great demand and the low understanding of the role of the physical therapist in this level of care, which causes low resolution and dialogue between the teams. The same used to happen with specialist physicians. Since according to the referral systems proposed by SUS, referral services participate along with matrix support teams whenever necessary and then direct to another point of care. The modification of this system would avoid the routes of endless referrals. Besides, reference and counter-reference systems predict a coordinated performance and the care shared between the generalist and specialist professionals, to integrate the care between various levels of the health system, organizing the demand and making access faster.

The conducts adopted after the physiotherapeutic diagnosis were set at the end of the work, but from the beginning, a protocol of actions was created, which helped in the therapeutic choices after screening, even when patients only needed guidances. In this study, the referral model used for reference to the point of specialized physiotherapy care did not identify with clarity the clinical diagnosis, as well as the need for appropriate care. The improvement in the resolution rate and service flow can be achieved upon correctly identifying the patient profile in the care “entrance.”

---

Box 1. Identification of problems and proposed solutions for the team of the Physiotherapy Center

<table>
<thead>
<tr>
<th>Form of Referral (Reference process to CF)</th>
<th>Diagnosis of Problems</th>
<th>Proposed Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centralization of medical referrals to the CF without considering the possibility of referring to primary health care.</td>
<td>Meeting with the physicians to propose a new model of referral, with the aim of improving the flow and reducing the waiting list.</td>
<td></td>
</tr>
<tr>
<td>Diagnostics not very clear, often indicating just the symptom (e.g. back pain).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requirements of physiotherapeutic conduct, for other professionals, some little used nowadays.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Definition by the physician of the number of treatment sessions of physiotherapy, conduct that is in breach of the professional autonomy.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Screening of patients by CF</th>
<th>Diagnosis of Problems</th>
<th>Proposed Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are no guidelines to patients. New schedules only occur when patients are discharged.</td>
<td>Organization of the CF team for daily screening, with guidelines and referrals to the groups when necessary.</td>
<td></td>
</tr>
<tr>
<td>Screening per priority (acute cases) performed by physical therapists of CF are based only on medical diagnosis.</td>
<td>Waiting list only for patients who do not have another option.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CF Care (Secondary Care)</th>
<th>Diagnosis of Problems</th>
<th>Proposed Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care of acute conditions (cardiorespiratory, neurological and fractures).</td>
<td>Appointment of a coordinator of the Physiotherapy team of the city. Integration of the work of physical therapists of ESF and CF.</td>
<td></td>
</tr>
<tr>
<td>Chronic orthopedic patients on the waiting list. Screening based on medical diagnoses.</td>
<td>Screening care by CF only for patients who do not have coverage of ESF.</td>
<td></td>
</tr>
</tbody>
</table>

---
decreasing the demand of patients for the secondary care, what might be called as micro-regulation. In the process of referral of these patients to APS for prevention and maintenance activities of the functional status of the evaluated patients, there was a lack of communication and management between the physical therapists of different services offered by the city. After this problem was identified, it was proposed to the Department of Health, the election of a General Coordinator of physiotherapy for all services of the city, in order to organize the flow of cares and unify the speech.

Another suggestion to the CF team was the insertion of a professional physical therapist once a week at the specialties center for awareness of medical experts, as well as to create a protocol for screening at the specialties center. There is little communication between the physiotherapy teams and lack of information to physicians and other professionals about the need for tiering the physiotherapeutic care. The lack of organization of the network of services reflected in a long waiting list for secondary physiotherapy. The problems found were related to low resolution on APS, the lack of coordination for physiotherapy teams, the lack of dialogue with other professionals, and the criteria used for screening and care criteria in the secondary level of care.

As limitations of the study, we should mention the resistance of patients in receiving guidelines, such as physiotherapy intervention. Although this aspect did not directly affect the analyses and proposals, it might affect the proper referral. The change of paradigm is fundamental because it compromises the patient with self-care, and shares the responsibility of the health with the therapist, thus creating a new culture for both (professionals and users). However, we understand that for this to occur, the professional belief about the effect of his therapy conduct in APS, result of an appropriate professional training, is paramount to change this scenario.

CONCLUSION

The high demand for assistance of physiotherapy on average complexity can be explained by the low resolution of the physiotherapy team on APS. The direct medical referrals to Physiotherapy Center, the unsuitable intake, the non-performance of screening and priority service, generated complaints from users, problems with staff and patients on the waiting list.

REFERENCES


