

Musculoskeletal complaints in a health unit: implications for health planning and physical therapy

Queixas musculoesqueléticas em uma Unidade Básica de Saúde: implicações para o planejamento das ações em saúde e fisioterapia

Quejas musculoesqueléticas en una Unidad Básica de Salud: implicaciones para el planeamiento de las acciones en salud y fisioterapia

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ABSTRACT | Objective: The aim of this study was to analyze the prevalence musculoskeletal complaints in adults in a Health Center. Methods: There were evaluated users seen in spontaneous reception in the period of 2010 March to 2011 May. Altogether there were studied 1.023 individuals. The characterization of the complaints was conducted through a questionnaire with socio demographic data and the reason for the demand for care. Results: Data from this study showed that most users were women (71.2%), aged 31 to 60 years (50.0%), single (31.6%), retired (14.2%) and had complaints in various systems (77.1%). The musculoskeletal system was the most affected (14.4%), representing the second reason for seeking treatment (31.0%). Analyzing the odds ratios of occurrence of musculoskeletal complaints in relation to the variables studied, we found that people aged 40 to 59 years were 3.49 (95%CI 2.17-5.57) times more likely to occur in association with these pains than older and younger persons. There was no association between other systems and the variables studied. Conclusion: The high prevalence of musculoskeletal complaints requires a new look from health managers to meet these demands, thinking about the possibility of including the physiotherapist in primary health care unit to treat less complex pains.

Keywords | health services needs and demand; primary health care; health centers; physical therapy specialty.

RESUMO | Objetivo: O objetivo deste estudo foi analisar a prevalência de queixas musculoesqueléticas em adultos em uma Unidade Básica de Saúde. Método: Foram avaliados os usuários atendidos na recepção espontânea no período de março de 2010 a maio de 2011. Ao todo, foram estudados 1.023 indivíduos. A caracterização das queixas foi realizada por meio de questionário com dados sociodemográficos e motivo da procura por atendimento. Resultados: Os dados mostraram que a maioria dos usuários pertence ao sexo feminino (71,2%), está na faixa etária de 31 a 60 anos (50,0%), é solteira (31,6%), aposentada (14,2%) e apresenta queixas em vários sistemas (77,1%). O sistema musculoesquelético é o mais acometido (14,4%), representando o segundo motivo de procura por atendimento (31,0%). Analisando as razões de chance de ocorrência de queixas musculoesqueléticas com relação às variáveis estudadas, verificou-se que pessoas com idade entre 40 e 59 anos apresentaram 3,49 (IC95% 2,17-5,57) vezes mais chances de associação com essas dores do que as demais. Não houve associação entre outros sistemas e variáveis. Conclusão: A alta prevalência de queixas musculoesqueléticas requer um novo olhar de gestores em saúde para o atendimento destas demandas, pensando em incluir o fisioterapeuta na atenção básica para tratamento de dores de menor complexidade.

Descritores | necessidades e demandas de serviços de saúde; atenção primária à saúde; centros de saúde; fisioterapia.

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RESUMEN | Objetivo: El objetivo de este estudio fue analizar la prevalencia de quejas musculoesqueléticas en adultos en una Unidad Básica de Salud. Método: Fueron evaluados los usuarios atendidos en la recepción espontánea en el período de marzo de 2010 a mayo de 2011. En total, fueron estudiados 1.023 individuos. La caracterización de las quejas fue realizada por medio de cuestionario con datos sociodemográficos y motivo de la búsqueda de atención. Resultados: Los datos mostraron que la mayoría de los usuarios pertenece al sexo femenino (71,2%), está en la franja etárea de 31 a 60 años (50,0%), es soltera (31,6%), jubilada (14,2%) y presenta quejas en varios sistemas (77,1%). El sistema musculoesquelético es el más afectado (14,4%), representando el segundo

motivo de búsqueda de atención (31,0%). Analizando las razones de posibilidad de ocurrencia de quejas musculoesqueléticas con relación a las variables estudiadas, se verificó que personas con edad entre 40 y 59 años presentaron 3,49 (IC95% 2,17-5,57) veces más posibilidades de asociación con esos dolores que las demás. No hubo asociación entre otros sistemas y variables. Conclusión: La alta prevalencia de quejas musculoesqueléticas requiere una nueva mirada de gestores en salud para la atención de estas demandas, pensando en incluir el fisioterapeuta en la atención básica para tratamiento de dolores de menor complejidad.

Palabras clave | necesidades y demandas de servicios de salud; atención primaria de la salud; centros de salud; fisioterapia.

INTRODUCTION

Health care is defined as welcoming users, becoming fully responsible for them, listening to their complaints, allowing them to express their concerns and, at the same time, imposing the necessary boundaries, thus ensuring resolute attention and articulation between services in order to continue the assistance when necessary¹. In practice, care refers to the activities of spontaneous reception, that is, the users who look for a basic health unit to be assisted due to an immediate need¹⁻³.

The organization of health services can be altered due to the needs of the users who look for health units⁴. Data related to spontaneous demand help to understand the structure of the services, which can lead to a new discussion involving planning and structure^{5,6}.

The physical therapy demand of patients concerning actions to promote health and prevent diseases, treatment and rehabilitation should be addressed by means of the health unit.

Both in the family health and in the traditional models of basic care, it is possible to observe difficulties to access services with other levels of complexity and resoluteness, especially for the secondary network, due to the lack of professionals and service units. Physical therapy reference and counter-reference systems can be built based on the demand of services. Such demand still needs to be studied, since there are a few papers pointing out these numbers.

Epidemiological analyses conducted in different regions of the country on the demands of patients with musculoskeletal complaints can provide data concerning the need for physical therapy^{7,8}. Esperança et al.⁴ analyzed the demand in a family health unit of a medium-sized city and found 9% of the complaints were related to the musculoskeletal system, while Barros et al.⁹,

when analyzing data of National Household Sample Survey in 2003, showed that spinal pain was the most prevalent chronic pathology.

Since there are few studies analyzing these data in basic health units, the objectives of this paper were to estimate the prevalence of musculoskeletal complaints among adults in the spontaneous reception sector of the Adult Health Service of the health unit, to assess the factors that are associated with these complaints and to discuss the implications of these findings for the organization of health services in Primary Care.

METHODOLOGY

This is a prospective cross-sectional study developed at *Centro de Saúde Escola Butantã* (CSEB), together with the Medical Records and Information Service from March 2010 to May 2011.

CSEB assists a population of about 44 thousand inhabitants¹⁰ and is close to the Health District of Butantã. Its total population is of 377,576 inhabitants, according to the census performed by the Brazilian Institute of Geography and Statistics in 2000¹¹, who count on the service of 14 health units¹², but only 5 of them provide physical therapy care. The region has a Specialty outpatient clinic, located in Jardim Peri-Peri, as a secondary reference.

CSEB is a mixed unit, which works with the health program for users in its territory, presenting two family health teams to care for a restricted area, connected to the community *São Remo*.

The medical records of the patients assisted at the spontaneous reception of the Adult Health Service, aged between 18 to 80 years old, were assessed, in the

following days and periods of the week: Monday morning and afternoon, Wednesday afternoon and Thursday morning. Medical records were sent for data collection, and afterwards to the registration of information in the statistical department of the unit. The chosen days and periods correspond to busy moments at the CSEB, and also to balance the users from the morning and afternoon periods. The assessed CSEB patients were the ones who looked for spontaneous reception of the service — daily demand of patients who do not have an appointment or scheduled activities.

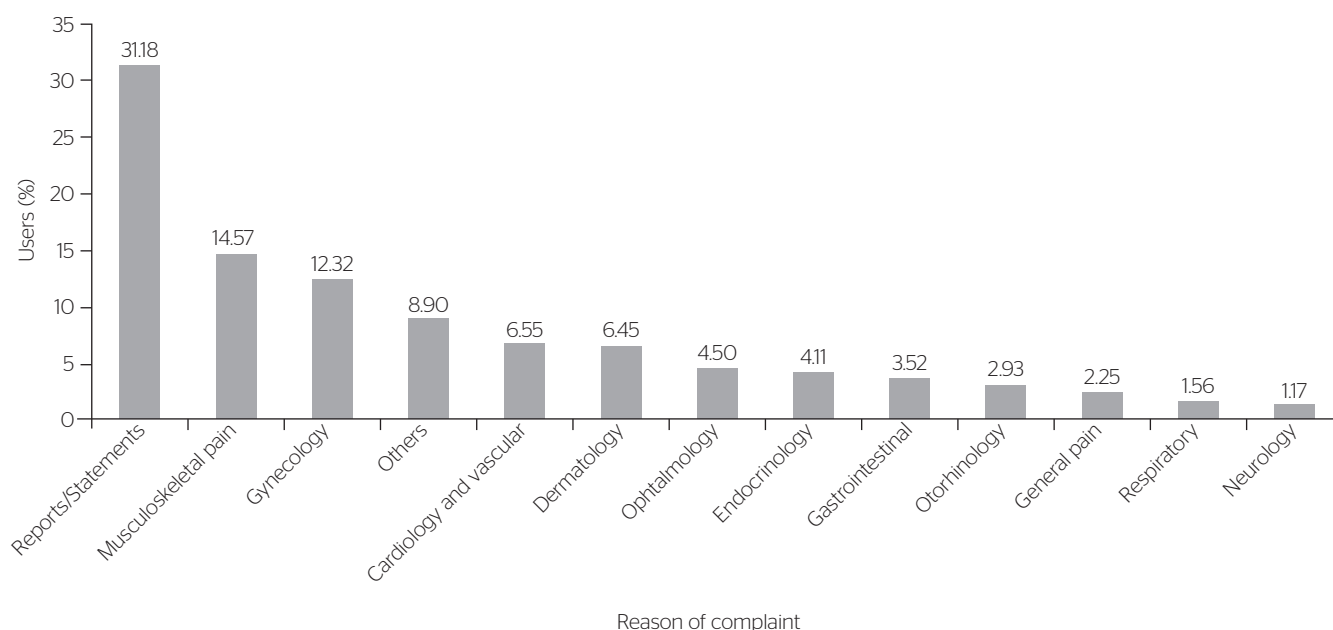
The users' reception is initially conducted by nurse technicians. Professionals discuss the cases with the doctors in charge that day and, in case there is any need, the patient will also go through medical evaluation. Normal test results and reference to other levels of care are usually carried out by nursing professionals, who lead them to health promotion groups of reference services. Information was obtained by the form file for the non-scheduled patient and the outpatient care form, filled out with the data collected from medical records.

The outpatient care form has two parts. In the first one, there are the personal data of the patients (name, age, gender, address, professional occupation, telephone number and date of appointment in the health unit), while in the second one the reasons to search the service are approached (clinical complaints, search for results or schedule of tests, medical statements or declarations).

For the statistical treatment of data, the softwares Microsoft Excel 2003 and Stata, version 11, were used. An inferential statistical analysis was conducted for the dependent variables, and the prevalence was estimated with the respective 95% confidence interval for musculoskeletal, neurological and respiratory complaints. There were bivariate analyses of the studied musculoskeletal complaints and sociodemographic variables. The value of $p \leq 0.2$ was considered in order to build the multiple logistic regression model to identify the net weight of each independent variable in the complaint. In the final model, significant values were $p \leq 0.05$.

RESULTS

In the studied period, 1,023 users searched the service spontaneously. Among the reasons, the prevalence of musculoskeletal complaints was of 14.57% (95%CI 12.46–16.88), 149 people; neurological complaints, 1.17% (95%CI 0.50–1.83), 12 people; and respiratory complaints, 1.56% (95%CI 0.80–2.33), 16 people. The demand due to musculoskeletal complaint was the second reason to search the service, and the first position was related to requests for reports/declarations/statements (31.18%), as demonstrated in Graph 1.



Graph 1. Distribution of spontaneous demand users assisted at the Adult Health Service, according to reason of complaint (*Centro de Saúde Escola Butantã 2010/2011*)

In Table 1, the distribution of assessed users is observed. Mostly women looked for the analyzed service, with mean age of 46.80 years old (standard deviation of 18.62), single, from the service field, with mean income of 1.33 minimum wage (standard deviation of 1.28)

The locals of origin of the users were Jardim São Remo (32.7%), Jardim Bonfiglioli (5.6%), Vila Alba (5.2%), Vila Butantã (4.4%) and others (52.1%).

The odds ratio of sociodemographic variables in relation to musculoskeletal, neurological and respiratory complaints was analyzed. Age was independently associated with musculoskeletal complaints and people aged 40 to 59 years old were more associated to them than the others. Gender and profession did not present any connection with musculoskeletal complaints in the bivariate analysis (Table 2).

Table 1. Distribution of spontaneous users assisted at the Adult Health Care, according to sociodemographic data (*Centro de Saúde Escola Butantã 2010/2011*)

| Variable | Musculoskeletal complaint | | Total sample | |
|------------------------|---------------------------|-------|--------------|-------|
| | n | % | n | % |
| Gender | | | | |
| Female | 110 | 10.75 | 728 | 71.16 |
| Male | 39 | 3.81 | 295 | 28.84 |
| Age (years) | | | | |
| Until 39 | 29 | 2.83 | 377 | 36.85 |
| 40 to 59 | 80 | 7.82 | 366 | 35.78 |
| 60 or more | 40 | 3.91 | 280 | 27.37 |
| Marital status | | | | |
| Single | 42 | 4.11 | 336 | 32.91 |
| Married | 46 | 4.50 | 287 | 28.11 |
| Living together | 24 | 2.35 | 213 | 20.86 |
| Widow | 21 | 2.05 | 95 | 9.30 |
| Separated/divorced | 16 | 1.56 | 90 | 8.81 |
| Profession* | | | | |
| Retired | 24 | 2.35 | 145 | 14.22 |
| Housewife | 13 | 1.27 | 119 | 11.64 |
| Unemployed | 18 | 1.76 | 130 | 12.70 |
| Student | 7 | 0.68 | 66 | 6.47 |
| Industrial sector | 10 | 0.98 | 51 | 5.00 |
| Commerce sector | 7 | 0.68 | 88 | 8.63 |
| Service sector | 64 | 6.26 | 380 | 37.25 |
| Others | 5 | 0.49 | 43 | 4.02 |
| Income (Minimum wages) | | | | |
| until 1 | 50 | 4.89 | 398 | 39.29 |
| 1,1 to 2 | 73 | 7.14 | 406 | 40.08 |
| More than 2 | 25 | 2.44 | 209 | 20.63 |

*The different professions were group by field of economic activity

Table 2. Odds ratio for musculoskeletal complaints and sociodemographic factors (Centro de Saúde Escola Butantã 2010/2011)

| Musculoskeletal | OR (95%CI) | p-value |
|-----------------|------------------|---------|
| Age (years) | | |
| until 39 | 1 | 0,00 |
| 40 to 59 | 3,49 (2,17-5,57) | |
| 60 or older | 1,96 (1,14-3,37) | |
| Marital status | 1,1 (0,85-1,52) | 0,39 |
| Income | 0,9 (0,74-1,18) | 0,58 |

OR: Odds ratio; 95%CI: 95% confidence interval

DISCUSSION

When analyzing the demand of musculoskeletal, neurological and respiratory complaints among adults who spontaneously looked for a health unit, data show that most of the users who goes to CSEB presents the following characteristics: females (71.2%), aged between 15 and 39 years old (36.9%), single (31.6%), retired (14.2%), living in Jardim São Remo (32.7%), with complaints in several systems (77.1%). Concerning physical therapy, the musculoskeletal system is the most affected one (14.4%).

When verifying the profile of users in relation to gender, our data corroborate those of other authors, showing that women care more for their health¹³, be it in a health unit¹⁴ or in the search for public and private services⁷. According to Gomes et al.¹⁵, men look less for health services because the role of being a man in our society makes it difficult to practice self-care.

The most prevalent age group in our study is also referred by other authors^{13,16-18}. There is good attendance among adolescents, adults and the elderly, but adults at working and reproductive age represent the majority.

The most prevalent occupation among the analyzed users was that of professionals involved with the service field, representing 37% of the participants. Retired people, housewives and unemployed participants accounted for 38.5%. These data corroborate those of Travassos et al.¹³. The fact of working did not interfere in the search for care, since more than 60% of the people approached in the spontaneous reception worked.

Among the reasons to look for the spontaneous reception, the search for reports/statements was prevalent (37.8%). There are no studies presenting the reasons related to spontaneous reception including

different clinical complaints. There is no information on the search for examinations, statements or reports, for example.

In the study by Esperança et al.⁴, people look for a health unit specially due to respiratory complaints. Data do not coincide with those of our study, once musculoskeletal complaints were prevalent as a reason to search for care. Differences between these data can be related to the fact that this author is assessing the care of the family health strategy, and not only adults assisted by these teams. In the family health strategy, the percentage of children is higher, and respiratory complaints are more prevalent in this population, as pointed out by Alves et al.⁵. Concerning the adult population, our data are in accordance with Sala et al.¹⁹, which indicates the spinal pain complaint as the most prevalent one. Since there is low demand for neurological complaints, it may show how difficult it is for these patients to have access to the basic health unit.

Among the complaints related to physical therapy, musculoskeletal ones were the prevalent, corroborating the data by Moretto et al.⁸ and Siqueira et al.⁷.

Out of the assessed variables, it is more likely for people aged more than 40 years old to look for the health unit due to complaints. The age group of 40 to 59 years old had more chances of looking for the service than people older than 60. There was no association with the other studied variables. The review by Cimmino et al.²⁰ showed that age is a risk factor that is present in several studies. After the age of 65, there are less complaints, and such factor may be related to the reduction of physical and mental risks associated with work.

The prevalence of musculoskeletal complaints in the studied sample shows how important it is to rethink the resoluteness of demands related to the health needs of the population. Partly, these complaints will require physical therapy care.

The resoluteness of Primary Care ranges from 80 to 85% of the health problems of a community, when it is skilled to recognize, prevent and treat the most common problems with low technological density and high technical complexity¹. So, the high complexity of health care should solve around 15 to 20%. However, due to the hegemonic thinking of health workers, users, professionals and even managers, the solution for this type of health issue is focused on major technological centers, as opposed to what is proposed by the technical assistance model of the Unified Health System (SUS)²¹.

It would be necessary to have a skilled professional in the basic health units. Nowadays, there are

41,026 physical therapists who work for SUS, however, only 8,604 of them (21%) are in Primary Care²².

Besides the few services that have an available physical therapist, there is another complicating factor for users to have full access to the demands of musculoskeletal complaints: the difficulty of network care.

The experiences of the physical therapy in a basic health unit point out to home care, with groups and individuals²³⁻²⁵. Stories narrated by professionals who work at the family health strategy in Londrina show there is great demand for curative/rehabilitating care, so the activities of prevention and health promotion take fewer hours²⁶. This pressure exists there is no adequate physical therapy care in SUS. It is very difficult to refer patients from primary care to secondary care.

The research by Serra et al.²⁷ recognizes this difficulty, since users of SUS mention how difficult it is to be referred to more complex services. The health managers interviewed by Spedo et al.²⁸ indicated medium complexity as the problem of SUS, mentioning that sometimes it is easier to access high complexity procedures. The physical therapy treatment, in many cases, is conducted in medium complexity units, recognized by managers and users as a problem that should be faced since there are a few units in this level of care.

By studying demand, the manager can know the health needs of the population, and so it can help guide their policies, thus ensuring the integrality of health care.

Finally, it is worth to mention that the cross-sectional nature of this study does not lead to causal conclusions. Information was obtained very carefully so there were no mistakes, such as choosing periods with greater demand in the studied unit. It is important to perform randomized epidemiological studies about the health needs of the population, since they are essential to plan health public policies, especially those related to hiring and allocation of professionals in the field²⁹.

CONCLUSION

This study identified that 22.7% of the patients looked for the spontaneous service with musculoskeletal, respiratory and neurological complaints in the Adult Health Service of a health unit, and the most frequent complaints were musculoskeletal ones, representing 14.4%.

Individuals aged more than 40 years old present higher odds ratio concerning the search for a health service with musculoskeletal problems. The prevalence of this type of complaints requires a new look from health managers in order to meet these demands, thinking about including a physical therapist in Primary Care for the treatment of less complex pain.

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