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# Patient profile and reasons for the absence from scheduled medical appointments

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ABSTRACT. Organizing health services is a challenge for managers. Moreover, patients' absenteeism to appointments is a relevant issue. This study aims to evaluate the profile of absent users, the medical specialty, and reasons for absence from medical consultations in a reference clinic. This is a cross-sectional study conducted at a tertiary hospital in the state of São Paulo. Data was obtained from reports from the Hospital Center for Medical Informatics and electronic patient records (from January 1st to December 31st, 2018). Structured interviews were carried out (from April 2018 to February 2019) by phone with a random sample of 317 patients who were aged 18 years old or above and missed consultations in twelve medical specialties, after approval by the Research Ethics Committee. Analysis were performed using descriptive and analytical statistics, with a significance level set at 5%. In total, 69.09% of patients say they missed consultations. It is noteworthy that 18.06% of patients said they attended consultations, followed by those who claimed to be sick or hospitalized (16.98%, p-value=0.0006). Analyzing the context and reasons for absences generates knowledge for service management. We found inadequacies in scheduling and system records. Patients and health services must be co-responsible for optimizing the use of public health resources.

**Keywords:** Absenteeism; ambulatory assistance; nursing administration research; non-attending patients.

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# Introduction

What are the reasons for disorganized health service planning? Although managers plan and reflect on resources, they are incapable of always reaching their full use. One difficulty are reduced financial resources, a management challenge to meet demand (Jabalera, Morales, Rivas, & Porras, 2017; Oliveira, Cecilio, Gomes, Marques, Spindola, & Pontes, 2017).

The proper use of resources depends on the needs of the community, the improvement of consultation regulation, and the flow of organization between levels of care (Bastos et al., 2020).

Organizing care is a challenging task for managers. Meeting the needs of the population by adjusting resources to demand requires healthcare knowledge. The provision of health care must be supported by the guidelines of the Unified Health System (SUS).

Once the Constitution introduced SUS and Law 8080/1990 (Brasil, 1990), regulated by Decree 7508/20115 (Brasil, 2011), implemented it, Brazilian healthcare improved, ensuring the promotion, protection, recovery, and organization of health in the national territory. It promoted access to health systems to millions of users, based on principles of integrality, universality, and equity. Health actions and services began to be hierarchical and regionalized by levels of complexity of care (Brasil, 2017).

Coordinating SUS care levels is essential to guarantee care integrality. Thus, the primary, secondary, and tertiary care levels are organized according to their degree of complexity and the technology which is available and necessary to diagnose and treat patients. The primary level is the entry to the system, in which 85% of the needs of the demand (Rocha, Pereira, Pereira, & Silva, 2020) are expected to be solved.

For this coordination, a system refers patients from one level to another, according to the technology needed to solve problems (Brasil, 2020).

Several Brazilian municipalities show care inequalities, a fact that requires support networks to ensure patient care (Santos, 2017).

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There is a relation between health service cost and quality which must be balanced to be achieved. Brazil spends around 8% of its Gross Domestic Product on health (Saldiva & Veras, 2018), whereas Spain, 5.9%<sup>1</sup> (Jabalera et al., 2017). In view of these costs, there is concern about meeting the needs of the population and correlations with the care provided (Jabalera et al., 2017).

Services that suffer losses from the interference of financial resources and planning tend to have collective and individual problems. Solving problems requires regulating and organizing demand (Bastos et al., 2020). There are failures in care, one of which is evidenced by users missing scheduled medical consultations, considerably expanding the resources involved in planning the service as it generates the need to reschedule consultations or increase emergency care. Thus, service planning requires knowledge of failures and their reasons (Briatore et al., 2020).

Absenteeism in consultations disorganizes care and impairs the health response to patients, increasing the number of patients waiting for care, which may decrease problem solving (Jabalera et al., 2017). Patients miss their follow-ups, causing the search for a momentary solution in urgent and emergency care. This is a concern in Brazil (Beltrame, Oliveira, Santos, & Santos Neto, 2019) and in the world (Yatziv, Cohen, Halevy, & Kaliner, 2019).

We will explore the findings of the few studies on the subject.

In Israel, the outpatient absenteeism rate is 15% (Yatziv et al., 2019). A study pointed out that absences in specialized consultations represented waste for SUS, with an approximate expenditure of R\$ 3,558,837.88 (Beltrame et al., 2019).

The reason for patients' absence in scheduled medical consultations should be assessed due to financial losses and its negative impact on healthcare and patients. Rescheduling consultations can lead to a false impression of staff disorganization or care shortages (Izecksohn & Ferreira, 2014).

Failure to comply with the planned schedule may affect other individuals who could use that consultation, thus depriving them of care in detriment to their health. In Espírito Santo State, absenteeism reached 38.6% (Beltrame et al., 2019). In Spain, it ranged from 10 to 20% (Mesa, Asencio, & Ruiz, 2015).

Absenteeism causes harm when it is impossible to replace consultations for other patients with similar health needs (Costa, Duarte, & Vaghetti, 2018).

Assessing the causes of non-attendance contributes to improve the offered service, continuity of care, better use of resources, and users' access without interference in waiting lines and strain to emergency units (Frost, Jenkins, & Emmink, 2017).

Knowledge on absenteeism and its reasons is relevant to the planning of health services since it causes losses to all involved. This study is justified by the importance, in the organization and management of services, of answering the following research questions: What is the profile of the population absent from medical consultations? For which specialties is absenteeism most important? What are the reasons for absence from scheduled medical consultations in a referral outpatient clinic of a tertiary hospital?

## Materials and methods

This is a quantitative, epidemiological, and cross-sectional study, performed in an outpatient clinic of a university tertiary public hospital in the countryside of the state of São Paulo. It is the largest public reference institution in SUS, linked to the Regional Health Department VI (DRS-VI) and covering 68 municipalities (Hospital das Clínicas, 2019), with about 1.5 million inhabitants. It is part of the Healthcare Network, serving several clinical and surgical specialties. Patients come from emergency rooms, the local and regional primary network or are referred within the hospital itself. Patients treated by SUS predominate. Moreover, the hospital serves the Instituto de Assistência Médica ao Servidor Público Estadual (State Government Employee Medical Assistance Institute - IAMSPE) and some health agreements.

To obtain our sample, data from reports issued by the Centro de Informática Médica do Hospital (Hospital Center for Medical Informatics - CIMED) and patients' electronic medical records from January 1 to December 31, 2018, were used.

Our sample was calculated based on the number of absentees (22550 patients) in scheduled medical consultations at the outpatient clinic in the period (120891). Consultations referred to cardiology, dermatology, surgical and clinical gastrology, mastology, nephrology, surgical and clinical neurology, ophthalmology, orthopedics, urology, and vascular surgery, specialties chosen due to their greater number of visits.

Considering an 18.65% absenteeism rate in the period, a 95% reliability, and a 5% margin of error, the sample size estimated by a statistician was 227 individuals, divided across 12 clinics, analyzing those from Botucatu and other cities in the region. Absent patients over 18 years of age were included.

Sample selection was randomized in Excel®. It was also used to organize our database. According to our safety margin, 493 selected patients were chosen. Of these, 317 agreed to participate in our research, 151 were impossible to contact (due to invalid, disconnected or out-of-coverage phone numbers, unanswered calls or communication difficulties), 12 rejected our invitation, and 13 died.

For the structured interviews, conducted from April 2018 to February 2019, patients who failed to answer any of our five attempts at phone contacts on alternate days and times were excluded. Calls were made via mobile phones, recorded by the Call Recorder app. Data were transcribed to a form and sent to a research database.

This study was approved on 3/4/2018 by the Research Ethics Committee (opinion 2577434). Exemption from the informed consent form was authorized for the data extracted from the system. The consent form was read to participants who understood and authorized it before starting the phone interview.

Analysis of the collected data was descriptive and analytical, with absolute and relative frequencies. Differences between category percentages were evaluated by the difference of proportions and chi-square tests, with a 5% fixed significance level for p-values. Analyses used SAS® for Windows Program, v.9.4. and R v. 3.6.1.

Ages were stratified in 5-year groups, according to the 2010 census of the Brazilian Institute of Geography and Statistics(Instituto Brasileiro de Geografia e Estatística [IBGE], 2010), except for the zero interval (referring to 18 and 19 years of age). To analyze the time between scheduling and consultations, the following parameters were defined: 0, up to 30 days; 1, from 30 to 60 days; 2, from 60 to 120 days; 3, from 120 to 180 days; 4, from 180 to 365 days; and 5, more than 365 days.

To assess patients' occupations, the 2002 Brazilian Occupational Classification (CBO) system(Brasil, 2010) by large groups (0 to 9) was used. Group 0 (members of the armed forces, police, and firefighters); Group 1 (senior members of public authorities, public interest organizations and companies leaders, and managers); Group 2 (science and arts professionals); Group 3 (mid-level technicians); Group 4 (administrative service workers); Group 5 (service workers and salespeople in shops and markets); Group 6 (agricultural, forestry, and fishing workers); Group 7 (workers producing industrial goods and services); Group 8 (workers producing other industrial goods and services); and Group 9 (workers in repair and maintenance services.)

In total, 52 reasons for absence from medical consultations were listed. Similar answers were grouped and organized into 11 categories, based on the following justifications: Category 1 (presence at consultations), Category 2 (sickness, hospitalization or admission to another care), Category 3 (forgetfulness, cancellation, confusion or date change), Category 4 (barriers to transportation), Category 5 (family problems), Category 6 (work/class), Category 7 (relief or solution to problems in another way), Category 8 (communication), Category 9 (other private reasons), Category 10 (organizational problems in the service) and Category 11 (absence of exams or medication completion to go to consultations).

## Results

Results refer to the 317 (100%) patients interviewed who were absent from consultations in the twelve specialties studied, in the period of one year.

The number of absences were, per specialty, the following: Cardiology, 13 (4.10%); Dermatology, 97 (30.60%); Surgical and Clinical Gastrology, 8 (2.52%) each; Mastology, 4 (1.26%); Nephrology, 15 (4.73%); Surgical Neurology, 2 (0.63%); Clinical Neurology, 19 (5.99%); Ophthalmology, 44 (13.88%); Orthopedics, 85 (26.81%); Urology, 9 (2.84%); Vascular Surgery, 13 (4.10%).

Regarding origin, Botucatu (host city of the service) represented 21.77% of the services, whereas the other cities in the region, 78.23%. Behind Botucatu, the ones that stood out the most were: São Manuel (7.89%), Piraju (6.31%), and Avaré (5.99%).

According to Table 1, married, white, women, with incomplete middle school were predominantly absent in consultations.

According to Table 2, most absent patients belonged to interval 8, aged 55 to 59 years.

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**Table 1.** Profile of patients absent in scheduled medical consultations, according to gender, marital status, ethnicity, and educational attainment. Botucatu, São Paulo State, 2018/2019.

Variables	Absolute Frequency (n)	Relative Frequency ( %*)	p-value**
Gender (n=317)			< 0.0001
Female	200	63.09	
Male	117	36.91	
Marital Status (n=317)			< 0.0001
Married	181	57.10 <sup>a</sup>	
Single	83	26.18 <sup>b</sup>	
Widower	27	8.52°	
Divorced/Separated	25	7.89 <sup>c</sup>	
No information	1	$0.32^{d}$	
Ethnicity (n=317)			< 0.0001
Asian or Indigenous	1	$0.32^{a}$	
White	286	$90.22^{\rm b}$	
Mixed race	22	$6.94^{\rm c}$	
Black	6	$1.89^{a}$	
No information	2	$0.63^{a}$	
Educational attainment (n=317)			< 0.0001
Illiterate	9	$2.84^{c}$	
Complete Elementary School (1st to 4th grade)	21	$6.62^{\rm b}$	
Incomplete Elementary School (1st to 4th grade)	24	$7.57^{\rm b}$	
Complete Elementary School (5th to 8th grade)	35	11.04 <sup>b</sup>	
Incomplete Elementary School (5th to 8th grade)	83	26.18 <sup>a</sup>	
Complete Middle School	63	19.87ª	
Incomplete Middle School	20	6.31 <sup>b</sup>	
Does not know	1	$0.32^{d}$	
Literate only	26	$8.20^{\rm b}$	
Complete Higher Education	23	7.26 <sup>b</sup>	
Incomplete Higher Education	12	3.79 <sup>c</sup>	

<sup>\*</sup> Proportions followed by the same letter (within the categories for the same variable) fail to differ at the 5% level by the comparison test of proportions analogous to the chi-square test. \*\*p-value represents the general comparison of categories in each variable.

**Table 2.** Patients who were absent in scheduled medical consultations, according to age group. Botucatu, São Paulo State, 2018/2019.

	Frequency	Frequency	
Variables	Absolute	Relative	p-value**
	(n)	( %*)	
0(18 to 19 years)	8	$2.52^{bc}$	<0.0001
1(20 to 24 years)	23	$7.26^{a}$	
2(25 to 29 years)	18	5.68 <sup>ab</sup>	
3(30 to 34 years)	13	$4.10^{ m abc}$	
4(35 to 39 years)	14	4.42 <sup>ab</sup>	
5(40 to 44 years)	32	10.09 <sup>adc</sup>	
6(45 to 49 years)	27	8.52ª	
7(50 to 54 years)	34	$10.73^{\mathrm{ade}}$	
8(55 to 59 years)	45	14.20 <sup>e</sup>	
9(60 to 64 years)	24	7.57ª	
10(65 to 69 years)	36	$11.36^{\mathrm{ade}}$	
11(70 to 74 years)	13	4.10 <sup>ac</sup>	
12(75 to 79 years)	18	5.68 <sup>ab</sup>	
13(80 to 84 years)	8	$2.52^{\mathrm{bc}}$	
14(85 to 89 years)	4	1.26°	
Total	317	100.0	

<sup>\*</sup> Proportions followed by the same letter (within the categories for the same variable) fail to differ at the 5% level by the comparison test of proportions analogous to the chi-square test.\*\*p-value represents the general comparison of categories in each variable.

Consultation type was significant, with p=0.0001. Return consultations comprised 276 (87.07%) of cases, of which 27 (8.52%) were new ones and 14 (4.42%), other consultations.

According to Table 3, occupation and domestic service predominated both in the data from the medical records and in interviews.

Regarding the variable linkage to a health service, 275 patients (86.75%) reported linkage, whereas 42 (13.25%) lacked it. This was significant, with p<0.0001. When we assessed linkage to service type, it was

significant for Basic Health (UBS)/Family Health Units (USF) in the region, representing 202 patients (63.72%), of which 57 (17.98%) were linked to Botucatu UBS/USFs; 11 (3.47%), to the public hospital, whereas 4 (1.26%) had an agreement and 1 (0.32%) went to a private hospital.

The Table 4 shows patients who are absent from scheduled medical appointments, according to the reason for absence reported by the patient.

**Table 3.** Absent patients from scheduled medical consultations, according to occupation recorded in electronic medical records and occupation reported in interviews. Botucatu, São Paulo State, 2018/2019.

Groups according to cbo	Occupation recorded in medical records n(%)	Occupation in referred interviews n(%)	P-value <0.0001
Group 1	9(2.84%) <sup>bA</sup>	8(2.52%) <sup>bA</sup>	
Group 2	19(6.0%) <sup>bA</sup>	18(5.67%) <sup>bA</sup>	
Group 3	28(8.83%) <sup>bA</sup>	25(7.88%) <sup>bA</sup>	
Group 4	17(5.37%) <sup>bA</sup>	12(3.78%) <sup>bA</sup>	
Group 5	66(20.83%) <sup>aA</sup>	45(14.19%) <sup>aB</sup>	
Group 6	20(6.31%) <sup>bA</sup>	16(5.04%) <sup>bA</sup>	
Group 7	24(7.58%) <sup>bA</sup>	20(6.31%) <sup>bA</sup>	
Group 9	7(2.21%) <sup>cA</sup>	$4(1.26\%)^{dA}$	
Retired	17(5.36%) <sup>bA</sup>	43(13.56%) <sup>aB</sup>	
Student	16(5.05%) <sup>bA</sup>	12(3.78%) <sup>bA</sup>	
Pensioner	1(0.32%) <sup>cA</sup>	$1(0.32\%)^{\rm bA}$	
Domestic service	87(27.44%) <sup>aA</sup>	$72(22.71\%)^{cB}$	
Unemployed	None	3(0.96%) <sup>d</sup>	
No information	6(1.89%) <sup>cA</sup>	38(11.98%) <sup>aB</sup>	
Total	317(100%)	317(100%)	

<sup>\*</sup>Proportions followed by the same lowercase letter fail to differ at the 5% level (fixing occupations in medical records and reported ones). Proportions followed by the same capital letter fail to differ at the 5% level (fixing groups). Chi-square proportion comparison test.

**Table 4.** Absent patients in scheduled medical consultations according to the reason for patients' absence in scheduled medical consultations. Botucatu, São Paulo State, 2018/2019.

Variables	Reason	Absolute Frequency (n)	Relative Frequency (%)*	p-value ** 0.0006
Category 1 (Presence at consultations)	Claimed attending consultations	67	18.06 <sup>a</sup>	
Category 2 (Sickness, hospitalization or admission to other care)	Sickness (38) Hospitalization (15) Other same day consultations, prioritizing other care (8) Underwent surgery (1) Had a delivery at the time (1)	63	16.98ª	
Category 3 (Forgetfulness, Cancellation, confusion or date change)	Forgot the date (22) Confused date and/or time (13) Doctor canceled or appointments too close together (10) Rescheduled consultation/date change (9) Does not remember (4)	58	15.63 <sup>a</sup>	
Category 4 (barriers to transportation)	No public transportation (9) Missed the public transportation (6) Forgot to arrange transportation (3) Without own transportation (2) Truckers' strike and lack of fuel (1) Lives on the countryside and needed to wait for social evaluation for transportation (1) Ambulance driver forgot the patient at the stop (1) City bus broke down (1)	24	6.47 <sup>b</sup>	
Category 5 (Family problems)	No caregiver (6) Caring for family members (4) Had no one to look after their children (4) Personal/family problems (4) Family death (2) Hospitalized family members (2)	24	6.47 <sup>b</sup>	

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	Sick child (2)			
Category 6	Was working (18)	19	$5.12^{b}$	
(Work/class)	Was in class (1)			
, ,	Improved (6)	18	4.85 <sup>b</sup>	
	Sought another service (lives far or scheduling the			
	appointment took too long) (6)			
	Doctor advised them that, if well, they needed neither			
Category 7	attend the consultation nor cancel it in advance (2)			
(ameliorated or	Cared for at IAMSPE (1)			
solved the problem	Physician suspended care since the user had had the			
in another way)	expected surgery (1)			
	Another specialist advised them against going to care,			
	i.e., not undergo surgery at that time (1)			
	Physicians transferred them to the Medical Specialty			
	Outpatient Clinic-AME (1)			
	Consultation was scheduled but the user was not told	16	4.31 <sup>b</sup>	
	of the date (10)	16	4.51	
Category 8	SMS sent with a different consultation time (3)			
(Communication)	Canceled the consultation without warning (1)			
	Health center failed to inform the consultation date (1)			
	Lost the scheduling form (1)			
Category 9	Travelling (7)	15	$4.04^{b}$	
(Other private	Rain (3)			
reasons)	Lack of money (3)			
reasons)	Moved cities (2)			
	Poor quality of service (2)	8	$2.16^{c}$	
	Attended but reported being discharged since it was			
Category 10	too late in the evening - end of the care period (1)			
(Organizational	Physician dismissed them for an emergency surgery (1)			
problems in the	Arrived late and the physician refused to treat them (1)			
service)	Discharged by the physician since the examination			
service)	device was broken (1)			
	Left since care took too long (1)			
	Physician referred them to a fit-in consultation (1)			
Category 11	Could not get the exams for the consultation (4)	5	1.35°	
Missed exams or				
medication	Supposed to return after taking the medication (1)			
completion to	supposed to return after taking the incurcation (1)			
go the consultation				
	Total		317	100%

<sup>\*</sup> Proportions followed by the same letter (within the categories for the same variable) fail to differ at the 5% level by the comparison test of proportions analogous to the chi-square test. \*\*p-value represents the general comparison of categories in each variable.

### Discussion

All 317 interviewed patients were SUS users. In the Institution, there is the possibility of care by the Institute of State Government Employee Medical Assistance Institute and by health insurance, but SUS patients predominate.

Dermatology was the predominant specialty (30.60%), an expected datum due to its higher demand. Neurosurgery showed the lowest proportion of absentees (0.63%) since it shows the least shortage. Data were significant and interfered with patients' absence. In Espírito Santo, neurology showed lower absenteeism (40.1%) than other specialties (50%), since it is present in only a few health services, showing a reduced offer12 (Beltrame et al., 2019). In Spain, surgery showed a 9.5% absenteeism rate and hematology, an even lower number, 1.4% (Mesa et al., 2015).

We observed that the cities in the region offer the most services (78.23%.) Many municipalities in the country offer their patients primary health care, with the need to organize health networks (Beltrame et al., 2019). The studied region is located in the DRS VI-Bauru and has 68 municipalities, justifying the large number of patients treated in other cities (Hospital das Clínicas, 2019).

We found that most users were women, as did other studies (Briatore et al., 2020), (Izecksohn & Ferreira, 2014). Buenos Aires showed a similar scenario, with 72.7% (Briatore et al., 2020). Women's' greater search for SUS health services corroborates another study (Silva et al., 2018). A study in the Brazilian Northeast with men showed that they seek medium-complexity health services and emergency care units once symptoms

manifest themselves, evidencing an absence of preventive search and a quick solution to problems, in addition to difficulties in adhering to primary care follow-ups due to delayed care (Sousa et al., 2019).

Regarding marital status, married individuals were significant, whereas widowed and divorced/separated failed to differ from each other. In Paraná, 66% of hypertense patients who missed consultations had a partner (Barreto, Mendonça, Pimenta, Garcia-Vivar, & Marcon, 2018). On the other hand, an absence study in the United States, performed in a university hospital, which evaluated hand surgery found that 35% of absentees were single, followed by divorced patients, with 7.7% (Menendez & Ring, 2015). This difference can be justified by the predominance of older patients in our study. There are few studies in the literature relating marital status with patients' absence in scheduled medical consultations.

Ethnicity influenced absenteeism, and Asian, Indigenous, and Black individuals (or those for whom information was unavailable) failed to differ. The white majority in our study is justified by the prominent European immigration found in the municipality and region (Fundação Sistema Estadual de Análise de Dados [SEADE], 2020). In line with our study, Boston showed that 60% of white patients missed their consultations (Menendez & Ring, 2015).

Educational attainment differed significantly for absenteeism. Most patients (26.18%) showed complete middle school and incomplete 5th to 8th grades, though we found no significant difference when comparing them to complete high school. Illiterate patients and those with incomplete higher education failed to differ from each other. Note that complete and incomplete elementary school, complete middle school, incomplete high school, literate only, and complete higher education failed to significantly differ from each other. In Spain, primary education predominated with approximately 38% (Mesa et al., 2015). In Marabá, patients with complete middle school (Silva, Stermer, Barros, Rocha, & Domingues, 2021). Rio de Janeiro showed a low level of educational attainment (Izecksohn & Ferreira, 2014). We found no study reporting higher educational attainment among patients who missed their consultations.

Age significantly interfered with absenteeism, with most patients between 55 and 59 years (14.20%), although we found no significant difference for ranges 1, 2, 3, 4, 5, 6, 7, 9, 10, and 11. Participants' mean age was 51.16 years (ranging from 18 to 86 years). Unlike our study, in Argentina, most patients were 67 years old (Briatore et al., 2020). In Spain, it ranged from 51 to 55 years on average, similar to our study(Mesa et al., 2015). In Marabá, patients with a mean age of 33.9 years predominated (Silva et al., 2021).

Regarding scheduled consultation type, we observed that 87.07% were return consultations in the 4.42% of consultations that we can consider as incompatible with the information entered in the system (p<0.0001). In line with our study, in Argentina, return visits predominated (85.3%)(Briatore et al., 2020). In Ribeirão Preto, they comprised 57.6% of the total (Menendez & Ring, 2015). Unlike our study, in Spain, 48.6% of patients reported new cases (Mesa et al., 2015).

This research showed that health services refer patients to specialties and that the studied outpatient clinic followed-up with them, which may suggest that since they are return consultations, patients monitor their health problems.

Occupation interferes with absenteeism. However, when comparing occupations in medical records with occupations reported by patients, we can observe that they differed in group 5, retired and domestic service, in addition to those without information. Since pensioners increased in number, this discrepancy indicates that patients' record are out of date. Domestic service was the most prevalent occupation both in medical records and in interviews and may relate to the fact that women showed a greater number of absences. We found no data in the literature for comparison. Note that groups 1, 2, 3, 4, 6, 7 - retired and students, Group 5 - domestic service, and Group 9 - pensioners and without information - failed to statistically differ from each other.

Regarding linkage, 86.75% reported belonging to a health service, with a p<0.0001 significance, of which 63.72% use Basic Health or Family Health Units in the region. However, 13.25% lack linkage, which leads us to infer that, if needed, these users probably use emergency services, failing to monitor their health. No article was found to compare with the present study.

Reason for absence significantly interfered with patients' absenteeism. We should note that Categories 1, 2, 3; Categories 4, 5, 6, 7, 8 and 9; and Categories 10 and 11 failed to differ significantly from each other.

Category 1, claiming attending consultations, showed a higher proportion, similar to a study with cancer patients who missed consultations, in which that claim was relevant (40.35%) (Mazza, Ferreira, Picoli, & Costa, 2019). Although not exactly a reason, the datum is relevant since it suggests possible flaws in the information recording system or in patient consultation information.

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Category 2 showed the second highest proportion. In Argentina, research in a university hospital showed that 12% of patients missed their consultations due to malaise (Briatore et al., 2020). In São Paulo, reasons for absence are subdivided for other consultations. In total, 9.8% of patients were sick and 1.1%, hospitalized, though this was not the prevalent reason (Bittar, Magalhães, Martines, Felizola, & Falcão, 2016). To reduce absenteeism in this category, healthcare providers should thoroughly inform patients of scheduling, observing if there are appointments scheduled on the same day. Moreover, patients should, if unable to attend, try to cancel in advance so that care is made available for other patients.

The third reason, shown in Category 3, represented 15.63% of patients' responses. At a University Hospital in Buenos Aires, 44% of patients forgot to attend their consultations (Briatore et al., 2020). At the Dante Pazzanese Hospital, this is the second cause of absenteeism, with 23.5% (Bittar et al., 2016).

With the same number of absentee patients, Categories 4 and 5 shared 6.47% of reasons for missing consultations. In Category 4, the main reason was City Hall failing to make transportation available for patients' consultations. We emphasize, in this scenario, the co-responsibility of health services to refer patients to a specialty and ensure their transportation. The second reason evidenced was patients missing transportation. Similar to our study, this occurred in Ribeirão Preto in 7.02% of absences (Mazza et al., 2019), reaching, in Argentina, 4.7% (Briatore et al., 2020).

The most evident reason in Category 5, family problems, was lacking a caregiver for medical consultations. On the other hand, in Ribeirão Preto, this reason represented 1.75% of cases, the least prominent reason (Mazza et al., 2019). This Category is marked by unforeseen circumstances and difficulty in cancelling consultations by phone.

In Category 6, with 5.12% of all absences, most patients reported being at work at the time of the scheduled consultation. This datum shows the difficulty patients have of leaving work to go to consultations, indicating the need for greater flexibility with the scheduling dates to avoid absences. A study (Costa et al., 2018) points to non-flexible schedules as one absence indicator. As far as possible, patients' availability should be considered in scheduling appointments. In Ribeirão Preto, this reason represented 3.51% of cases (Mazza et al., 2019). In Diadema, the expectation was for patients to leave consultations with a schedule chosen by them, a proposal unfeasible due to lack of human resources (Albieri & Cecilio, 2015).

Category 7, with 4.85% of cases, reports that patients have improved or sought another service (either due to distance or delayed scheduling.) Similar to our study, 4.7% of patients in Argentina claimed the same reason (Briatore et al., 2020).

The most frequent reason in Category 8, with 4.31% of cases, is patients not being told of a scheduled appointment. Unlike our study, in Ribeirão Preto, this was the second most frequent reason (40.35%) (Mazza et al., 2019). These data refer to the need of improving communication in health services and updating registration.

In Category 9, 4.04% of the patients justified their absence by trips they took. We found no literature for comparison.

In Category 10, with 2.16% of cases, the most frequent reason was the poor quality of the service. In Spain (Mesa et al., 2015), 2% of patients were dissatisfied with care, similar to our study. This aspect could be improved by implementing a patient satisfaction survey (Costa et al., 2018).

The least frequent Category, 11, with 1.35% of cases, indicates that patients failed to get the tests necessary for consultations. In this case, appointment and examinations should allow for sufficient deadlines to present results. In Buenos Aires, this occurred in 8.7% of cases (Briatore et al., 2020).

Absences generate idleness in secondary care and negatively influence the possibilities of referral by primary care, thus relevant to know the reasons for the lack of management proactivity. Scientific knowledge should be sought to articulate and strengthen healthcare networks, thus improving individuals' health (Vendruscolo, Ferraz, Tesser, & Trindade, 2019). Mendes, in an interview, proposed that the National Council of Health Secretaries improve the access to primary care, benefiting care networks. He based his recommendation on available resource demand and offer to reduce consultation waiting times, use technological resources in care, and involve interdisciplinary teams. Another point to ameliorate absenteeism is to include responsibility for care and health service (Mendes, 2018).

### Conclusion

This study enabled us to know patients' profile and the reasons for absences in scheduled consultations in the 12 most common specialties in the studied outpatient clinic and compare these results with the available

literature. Married white women with incomplete middle school were predominantly absent in consultations. We found several reasons for absence and, although not exactly a reason, we draw attention to patients who reported attending their consultations (18.06%), contradicting the reports stating their absence. Unlike most studies in the literature which link reasons to patients, we found a study that indicated failure in the scheduling system. The law must guarantee patients' access to health services, but it is necessary to share responsibility with health services to reduce or avoid unnecessary expenditure of human and material resources available to patients. We found differences in the information in medical reports and interviews. Dermatology showed the most absences (30.60%).

To manage health services, it is relevant to understand the reasons for patients missing their consultations to guide corrective actions to improve the quality of care and implement measures to optimize resources.

As limitations of this study, one may relate to the insertion of data in electronic medical records, which is subject to failures and may have interfered in our results. Another refers to the scarcity of studies in the literature for comparison. Thus, though this is a regional study, it offers important evidence and adds knowledge to this relevant health management issue, points to be explored in future studies.

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