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ARTICLE

Experience with coordination of care between primary care physicians and specialists and related factors

Experiência de coordenação do cuidado entre médicos da atenção primária e especializada e fatores relacionados

Experiencia de coordinación del cuidado entre médicos de la atención primaria y especializada y factores relacionados

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Abstract

The article analyzes the coordination of information and clinical management between levels of care in physicians' experience and explores related labor and organizational factors and attitudes towards the work and interaction. This is a cross-sectional study with application of the COORDENA-BR *questionnaire to a sample of 64 primary health care (PHC) physicians and 56 specialized care (SC) from the public system in a medium-sized Brazilian city. The results show limited linkage of care in the Healthcare Network (RAS), with differences between PHC and SC. There is no exchange of information on diagnosis, treatment, or tests. Physicians in PHC agree more on the treatments prescribed by the specialists than vice versa, but repetition of tests is not frequent. PHC physicians refer patients to SC when necessary. Most medical specialists do not refer patients for follow-up consultations in PHC when necessary and do not give orientation to PHC physicians, who in turn fail to resolve their doubts with SC. Both PHC and specialties report long waiting times for specialist consultations. Temporary employment contracts are more common in PHC. Consultation time was considered too short for coordination between the two. Most physicians do not plan to change jobs, despite their heavy dissatisfaction with wages and work. Physicians do not know each other personally, and specialists do not identify physicians in PHC as the coordinators of care. Policies and measures to guarantee structural conditions to improve access, working conditions, and more favorable mutual adaptation need to be implemented systemically to the set of services in the Brazilian Unified National Health System (SUS).*

Health Care Levels; Comprehensive Health Care; Integrality in Health; Health Evaluation

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Introduction

Primary health care (PHC)-oriented health systems are expected to coordinate patient care throughout the care continuum [1,2]. The search for integrated care is a fundamental component of health system reforms. It is central to addressing the challenges of an aging population and, especially, a higher burden of chronic diseases, which often require the care of several providers and services over time [3]. Care coordination emerges as one of the results of care integration and can be defined as the connection of all services and actions related to patient care, so that they harmonize and achieve a common, conflict-free goal [4], regardless of their location.

In a systemic logic, overcoming fragmentation and achieving continuing care, integrated networks of health services, based on the strengthening of PHC as a gateway and organizer of flows to other services, has been a strategy adopted in several health systems [2]. In Latin America, most countries, from the 2000s onwards, promoted care model reforms based on a comprehensive PHC proposal [5]. However, establishing Healthcare Networks (RAS in portuguese) and intrinsic to PHC in assuming care coordination between care levels [6,7] remains a challenge.

Care coordination can be analyzed from different perspectives. In Brazil, one of the most widespread and used concepts refers to vertical coordination, which occurs between the levels of care in the health system; and horizontal coordination, which takes place at the same level of care, whether within the PHC or specialized care (SC), and in the territory, through intersectoral relationships [7]. In the country, the difficulty in achieving better coordination has been attributed to the hardships in ensuring integration between care levels, whether due to the low use of information and communication technologies, the lack of definition of care flows in the RAS, or the insufficient specialized rearguard therapy, a significant bottleneck in the Brazilian Unified National Health System (SUS) [7,8].

A wide range of definitions for care coordination is available in the literature. Based on the definition by Longest & Young [4], Aller et al. [9] and Vázquez et al. [10] identify three care coordination types between levels: information, clinical management, and administrative, and we shall focus on the first two. Clinical information coordination involves the transfer and use of patient information between different services and care levels. Clinical management coordination is expressed in the sequential and complementary provision of care and covers three dimensions: care coherence, interlevel monitoring of users, and accessibility between care levels. Administrative coordination refers to the administrative activities necessary for access between care levels (such as administrative circuits, central regulation, and definition of flows).

Interventions can be implemented at the macro (policies to promote the RAS, payment systems), meso (organization of health networks), and micro (coordination mechanisms and instruments) levels [10] to achieve greater clinical coordination. Such strategies can improve the exchange of information, increase care consistency and accessibility between levels, avoid unnecessary repetitions of tests, and long waiting times for specialized visits [10,11]. Organizational factors (availability, time during and after consultations to use coordination mechanisms) and other factors related to attitude towards work (job satisfaction) and interaction between professionals (trust, knowledge, and considering the PHC physician responsible for the coordination function) may favor or constrain care coordination [11].

In the SUS, studies analyzing care coordination from the perspective of PHC physicians, who are primarily responsible for screening the demand to other levels of care, are also less frequent, and SC physicians who receive and share the care of referred users, such as those performed by Vázquez et al. [11], Jesus et al. [12] and Oliveira et al. [13]. The need for interlevel collaboration is increasingly related to the provision of safe and quality care, although organizational (time unavailability, lack of structures, rules, and communication resources), professional barriers (different characteristics and personal, social, and communication values) are recognized, among other that challenge a more articulated performance [14]. Knowing the experience and perception of professionals who share the care of users in the RAS can favor implementing arrangements that encourage a professional culture more receptive to cooperation and dialogue. This paper aims to analyze PHC and SC physicians' experience and perceptions about information coordination and clinical management between care levels and explore factors related to work, organization, attitude towards work, and interactive factors.

Methods

Study design and location

It is a cross-sectional based survey with the application of the *COORDENA-BR* questionnaire to PHC and SC physicians from the SUS network in a medium-sized municipality in the Northeast Region (approximately 340,000 inhabitants in 2019), Brazil. The primary network consisted of 42 basic health units (UBS) equipped with 44 teams from the Family Health Strategy (FHS) and 7 traditional UBS, with PHC coverage of 60% (47% FHS and 13% traditional UBS) [15]. A medical specialties center was selected among the services of the specialized municipal network, which concentrated most of the specialized visits (angiology, anesthesia, cardiology, surgery, dermatology, endocrinology, gastroenterology, hematology, mastology, nephrology, neurology, oncology, otorhinolaryngology, orthopedics, pneumology, proctology, rheumatology, and urology); an outpatient mental health clinic; a rehabilitation clinic (orthopedics and angiology); and two traditional UBS, where some specialists (gynecologists/obstetricians and pediatric hematologist) worked as referrals for PHC. Individual private providers and specialized units that did not receive a direct referral from PHC were excluded.

Study population and sample

According to information from the municipal management, the study population consisted of all PHC physicians (FHS and traditional UBS) and specialists from municipal services who received regular referrals at the onset of the field (June 2019). A total of 120 of the 136 operational physicians (88.2%) were interviewed. Interviewed subjects and losses, according to their service, are described in Table 1.

Instrument

We used the *COORDENA-BR* questionnaire (http://www.equity-la.eu/upload/seccions/files/COORDENA_BR%282%29.pdf), for data collection, which was adapted, translated into Portuguese, and validated. It is based on the theoretical model for assessing coordination between care levels developed by Vázquez et al. [10] and Vargas et al. [16]. The instrument was digitized using the Kobo Toolbox 1.4.8 software (https://downloadapk.net/down_KoBoCollect.4511263.html), available on tablets, Samsung brand, model Galaxy Tab A.

The complete questionnaire addresses: (1) experience of coordinating information and clinical management between care levels, their respective dimensions, and general perception of coordination; (2) professional interaction factors related to coordination between levels; (3) knowledge and use of coordination mechanisms; (4) suggestions for improving coordination; (5) organizational, work factors and attitudes related to coordination between levels; (6) sociodemographic data of the respondents. The data obtained in sections 1, 2, and 5 of *COORDENA-BR* will be analyzed in this paper.

Data collection

Face-to-face interviews were conducted from June to October 2019 at the physicians' respective workplaces, with an average duration of 26.6 minutes, audio-recorded on a device for transcription and categorization of open-ended questions to apply the questionnaire. We employed direct monitoring of field activities and evaluated the completion of all questionnaires in the database to ensure the quality of data collection and reliability.

Variables and data analysis

This study analyzed variables related to the coordination of clinical information and clinical management between PHC and SC, which make up the *COORDENA-BR* (Box 1), and working conditions (type of professional relationship, remuneration, weekly workload, working time, experience in the workplace, and additional work in the private sector), organizational (sufficient visit time for clinical coordination); attitude towards work (pretending to change jobs in the next six months, satisfaction

Table 1

Primary health care (PHC) and specialized care (SC) physicians interviewed by a health service in operation. Medium-sized municipality, Northeast Region, Brazil, 2019.

Type of PHC and SC service	Physicians (n)	Losses n (%)	Respondents n (%)
PHC physicians			
FHS physicians			
Rural area	16	2 (12.5)	14 (87.5)
Urban area	28	2 (7.1)	26 (92.9)
Total of FHS physicians	44	4 (9.1)	40 (90.9)
Total of UBS physicians	26	2 (7.7)	24 (92.3)
Total of PHC physicians	70	6 (8.6)	64 (91.4)
Specialist physicians			
Medical specialties center	52	9 (17.3)	43 (61.4)
Mental health clinic	5	-	5 (100.0)
Rehabilitation clinic	2	-	2 (100.0)
UBS	7	1 (14.3)	6 (85.7)
Total of specialist physicians	66	10 (15.2)	56 (84.8)
Total of physicians and respondents	136	16 (11.7)	120 (88.2)

FHS: Family Health Strategy; UBS: basic health units.
Source: prepared by the authors.

with salary and work) and relational or interactional (trust in clinical skills, personally familiar with the physician at the other level, and considering the PHC physician as responsible for coordination). The Likert scale (always, often, sometimes, very few times, and never; totally agree, agree, neither agree, nor disagree, disagree, and strongly disagree) and dichotomous answers (yes/no) were used for the answers. Variables were submitted to a descriptive analysis using absolute (n) and relative (%) frequencies according to the care level. Some variables of interest were dichotomized for better comparison. The answers "always, often" and "totally agree, agree" were considered "yes", whereas "sometimes, very few times, and never" and "neither agree, nor disagree, disagree, and strongly disagree" as "no". The data were processed using the Stata program, version 15.0 (https://www.stata.com). Differences between proportions were assessed through Pearson's chi-square test and Fisher's exact test.

The study was approved by the Ethics Research Committee of the Federal University of Bahia (UFBA), under opinion n. 3.334.464 and CAAE: 09503419.1.0000.5556, with the consent of the municipality.

Results

Sample characteristics

Most physicians interviewed were male (56.7%), with most female in PHC (54.7%). PHC professionals were aged between 25 and 34 years old (40.6%) and the majority of SC physicians were between 35 and 49 years old (60.7%), had more time since graduating, and were public university graduates (55.4%). In PHC, 62.5% of physicians were private college graduates, and around 59.4% had no medical residency yet, with only four professionals in the process of completing their residency in Family and Community Medicine (Table 2).

Box 1

Types of coordination between care levels, dimensions/attributes, and related items/questions.

Types of coordination	Dimensions/Attributes	Items/Questions
Coordination of information between levels	Exchange, pertinence and use of clinical information between levels of care	1. PHC physicians and specialists, including you, exchange information about the patients they care for in common (diagnosis, treatments, tests); 2. This information is necessary for patient care; 3. Physicians and specialists, including you, take into account the information exchanged about patients;
Coordination of clinical management between levels	Consistency of care between levels	4. PHC physicians refer patients to specialists when necessary; 5. PHC physicians and specialists, including you, repeat the tests that physicians at other levels have performed; 6. Physicians, including you, agree with the treatments that physicians at the other level have prescribed or indicated to patients; 7. There are contradictions or duplications in the treatments prescribed by PHC and specialists physicians, including you;
	Monitoring the patient between levels of car	8. Experts refer patients to PHC for a follow-up visit, when necessary; 9. After being seen by the specialist, the patient attends a follow-up visit with the PHC physician; 10. Experts make recommendations ((diagnosis, treatment, other orientations) to the PHC physician on patient follow-up; 11. PHC physicians consult specialists about their doubts about patient follow-up;
	Accessibility between levels of care	12. When referred to a specialist, the patient has access to the visit to a specialist through the public health system 13. When referred to a specialist, the patient waits a long time until the day of the visit; 14. After a visit to the specialist, when the patient requests an appointment with the PHC physician, he waits a long time until the day of the visit.

PHC: primary health care.
Source: built based on *COORDENA-BR*.

Coordination experience between care levels

Only 4.2% of the PHC and SC physicians stated a frequent exchange of clinical information (diagnosis, treatment, and tests) of users whose care was shared, although most (83.9%) considered it necessary, especially among PHC professionals (93.6%), compared to SC professionals (72.5%) ($p = 0.008$). A higher percentage of specialists (80%) reported that physicians considered clinical information when shared (Table 3).

Concerning the coordination of clinical management between care levels, significant differences were observed between PHC and SC physicians' experience regarding the coherence of the care provided. Approximately one-third of the specialists (30.4%) said he agreed with the PHC physicians' treatments, and, on the contrary, most of the PHC physicians said he agreed with SC's treatments (70.3%) ($p < 0.001$). Even so, about 72.5% of physicians reported that there were no contradictions between the treatments prescribed at the two care levels, with a higher frequency among PHC physicians (82.8%), when compared to the experience of SC physicians (60.7%) ($p = 0.010$). A low percentage of physicians at both levels (11.7%) considered that tests were repeated in the usual way. Almost all PHC physicians (95.3%) reported referring users to the specialist when necessary, the proportion of SC physicians who considered the necessary PHC referrals was lower (53.6%) ($p < 0.001$) (Table 3).

Most physicians at both levels (65%) said that there were no follow-up visit in PHC after seeing the specialist, a higher percentage among SC physicians (71.4%) than PHC physicians (59.4%) ($p = 0.003$).

Table 2

Sample characterization. Medium-sized municipality, Northeast Region, Brazil, 2019.

Characteristics	PHC [n = 64] n (%)	SC [n = 56] n (%)	Total [n = 120] n (%)
Gender			
Female	35 (54.7)	17 (30.4)	52 (43.3)
Male	29 (45.3)	39 (69.6)	68 (56.7)
Age (years)			
25-34	26 (40.6)	11 (19.6)	37 (30.8)
35-49	22 (34.4)	34 (60.7)	56 (46.7)
50-74	16 (25.0)	11 (19.6)	27 (22.5)
Nationality			
Brazil	64 (100.0)	56 (100.0)	120 (100.0)
Training time (years)			
≤ 2	15 (23.4)	0 (0.0)	15 (12.5)
3-10	26 (40.6)	15 (26.8)	41 (34.2)
11-20	7 (10.9)	24 (42.8)	31 (25.8)
> 20	16 (25.0)	17 (30.4)	33 (27.5)
Education institution			
Public	24 (37.5)	31 (55.4)	55 (45.8)
Private	40 (62.5)	25 (44.6)	65 (54.2)
Medical specialization			
No medical residency	38 (59.4)	0 (0.0)	38 (31.7)
Resident in Family and Community Medicine *	4 (6.2)	0 (0.0)	4 (3.3)
Surgery	0 (0.0)	9 (16.1)	9 (7.5)
Gynecologists/Obstetricians	3 (4.7)	5 (8.9)	8 (6.7)
Pediatrich	7 (10.9)	0 (0.0)	7 (5.8)
General practitioner	6 (9.4)	0 (0.0)	6 (5.0)
Psychiatry	0 (0.0)	5 (8.9)	5 (4.2)
Endocrinology	2 (3.1)	4 (7.1)	6 (5.0)
Others	4 (6.3)	33 (58.9)	37 (30.8)

PHC: primary health care; SC: specialized care.

Source: prepared by the authors.

* Residence in progress during the research period.

Recommendations and guidelines for PHC were very infrequent (15%), with 25% of experts reporting that they were performed and only 6.3% of PHC physicians had this perception (p = 0.004). Likewise, a deficient proportion of professionals (6.7%) reported that PHC physicians consulted specialists to clarify concerns regarding users' follow-up (Table 3).

As for accessibility between care levels, approximately half of the physicians (55%) considered that the patients had access to specialized visits by the SUS, mostly among specialists (76.8%), and only a third of PHC physicians (35.9%) (p < 0.001). As for the specialized visits, both PHC professionals (93.7%) and SC professionals (75%) affirmed that waiting time for a visit was long, with significant differences (p = 0.004). Only 6.3% of the PHC physicians and 16.1% of the specialists considered that the waiting time for service at the PHC was long after a specialized visit (p < 0.001), and 21.4% of the SC physicians did not know or did not respond. Finally, only a small minority (7.5%) of physicians at both levels said that the care provided in the network by PHC and SC physicians was articulate (Table 3).

Table 3

Experience of primary health care (PHC) and specialized care (SC) physicians on coordination between care levels, medium-sized municipality, Northeast Region, Brazil, 2019.

Coordination dimensions between care levels	PFC [n = 64] n (%)	SC [n = 56] n (%)	Total [n = 120] n (%)	p-value
Coordination of information				
PHC and SC physicians exchange information about common patients				0.663
Yes	2 (3.1)	3 (5.4)	5 (4.2)	
No	62 (96.9)	53 (94.6)	115 (95.8)	
The information exchanged is necessary for patient care *	[n = 47]	[n = 40]	[n = 87]	**0.008**
Yes	44 (93.6)	29 (72.5)	73 (83.9)	
No	3 (6.4)	11 (27.5)	14 (16.1)	
PHC and SC physicians consider the information exchanged about patients *				0.209
Yes	32 (68.1)	32 (80.0)	64 (73.6)	
No	15 (31.9)	8 (20.0)	23 (26.4)	
Coordination of clinical management between levels				
Consistency/Coherence of care between levels				
Physicians, including you, agree with the treatments indicated by physicians of another level				**< 0.001**
Yes	45 (70.3)	17 (30.4)	62 (51.7)	
No	19 (29.7)	39 (69.6)	58 (48.3)	
There are contradictions or duplications in the treatments prescribed by PHC and SC physicians, including you				**0.010**
Yes	11 (17.2)	21 (37.5)	32 (26.7)	
No	53 (82.8)	34 (60.7)	87 (72.5)	
Don't know/Did not answer	0 (0.0)	1 (1.8)	1 (0.8)	
PHC and SC physicians, including you, repeat exams that have already been performed at another level				0.790
Yes	7 (10.9)	7 (12.5)	14 (11.7)	
No	57 (89.1)	49 (87.5)	106 (88.3)	
PHC physicians refer patients to specialists when necessary				**< 0.001**
Yes	61 (95.3)	30 (53.6)	91 (75.8)	
No	3 (4.7)	26 (46.4)	29 (24.2)	
Monitoring the patient between levels of care				
Experts refer patients to PHC for a follow-up visit				0.341
Yes	33 (51.6)	24 (42.9)	57 (47.5)	
No	31 (48.4)	32 (57.1)	63 (52.5)	
After being seen by the specialist, the patient attends a follow-up visit with the PHC physician				**0.003**
Yes	26 (40.6)	11 (19.6)	37 (30.8)	
No	38 (59.4)	40 (71.4)	78 (65.0)	
Don't know/Did not answer	0 (0.0)	5 (8.9)	5 (4.2)	
Experts make recommendations/provide guidelines to the PHC physicians on patient follow-up				**0.004**
Yes	4 (6.3)	14 (25.0)	18 (15.0)	
No	60 (93.7)	42 (75.0)	102 (85.0)	
PHC physicians consult specialists when in doubt about patient follow-up				0.281
Yes	6 (9.4)	2 (3.6)	8 (6.7)	
No	58 (90.6)	54 (96.4)	112 (93.3)	

(continues)

Table 3 (continued)

Coordination dimensions between care levels	PFC [n = 64] n (%)	SC [n = 56] n (%)	Total [n = 120] n (%)	p-value
Accessibility between levels of care				
The patient has access to the visit to a specialist through the public health system				**< 0.001**
Yes	23 (35.9)	43 (76.8)	66 (55.0)	
No	41 (64.1)	13 (23.2)	54 (45.0)	
The patient waits a long time for a visit to a specialist				**0.004**
Yes	60 (93.7)	42 (75.0)	102 (85.0)	
No	4 (6.3)	14 (25.0)	18 (15.0)	
After a visit to the specialist, the patient waits a long time for an appointment at the PHC				**< 0.001**
Yes	4 (6.3)	9 (16.1)	13 (10.8)	
No	60 (93.7)	35 (62.5)	95 (79.2)	
Don't know/Did not answer	0 (0.0)	12 (21.4)	12 (10.0)	
General perception about the coordination of care between care levels				
The care provided by SC and PHC physicians in the network is articulated				1.000
Yes	5 (7.8)	4 (7.1)	9 (7.5)	
No	59 (92.2)	52 (92.9)	111 (92.5)	

No: sometimes, very few times and never; PHC: primary health care; SC: specialized care; Yes: yes and often.

Source: prepared by the authors.

Note: in bold p-value < 0.05.

* Question was not answered by physicians who reported never exchanging information with other physicians.

Work, organizational, attitude towards work and interaction factors related to clinical coordination between care levels

Temporary employment relationships were more frequent among PHC professionals (67.2%) (p < 0.001). In this case, it was highlighted that 37.5% were Brazilian physicians of the More Doctor Program in force at the time. Among the specialists, a higher percentage of statutory workers was observed (42.9%), and all employees were salaried (p < 0.001). PHC physicians had a higher workload of dedication to the service than specialists. Most specialists also worked in the private sector (92.9%), in contrast to PHC physicians (48.4%) (p < 0.001). Most specialists (62.5%) had four or more seniority years in the workplace, while this percentage was 43.7% among PHC physicians (Table 4).

As for the organizational factors, only 17.2% of the PHC physicians considered the time of the visit sufficient to exercise clinical coordination activities and 39.3% among specialists (p = 0.007) (Table 4).

Regarding the attitude towards work, most specialists (92.9%) and PHC physicians (78.1%) did not intend to change jobs (p = 0.024), although dissatisfaction with wages was high (60.8%), mainly in SC (71.4%) (p = 0.026) and work in general (82.5%), also higher among specialist physicians (85.7%) (Table 4).

Regarding interaction or relational factors, most PHC physicians (70.3%) considered themselves the professional responsible for monitoring users in their care trajectory, and only 17.9% of specialists (p < 0.001) recognized this function. Almost all respondents (90%) did not personally know physicians at the other level. The percentage of 73.4% of the PHC physicians stated that they trusted the clinical skills of the specialists and about 53.6% (p = 0.024) of the specialists stated that they trusted the PHC professionals (Table 4).

Table 4

Labor, organizational, attitude towards work, and interactive factors related to clinical coordination between care levels. Medium-sized municipality, Northeast Region, Brazil, 2019.

Related factors	PNC [n = 64] n (%)	SC [n = 56] n (%)	Total [n = 120] n (%)	p-value
Labor				
Professional relationship				**< 0.001**
Fixed-term contract	15 (23.4)	21 (37.5)	36 (30.0)	
Indefinite contract	10 (15.6)	11 (19.6)	21 (17.5)	
Statutory	11 (17.2)	24 (42.9)	35 (29.2)	
More Doctors Program	24 (37.5)	0 (0.0)	24 (20.0)	
Resident	4 (6.3)	0 (0.0)	4 (3.3)	
Remuneration				**< 0.001**
Salary	36 (56.3)	56 (100)	92 (76.7)	
Scholarship holder	28 (43.7)	0 (0.0)	28 (23.3)	
Weekly working hours				0.071
20-32	42 (65.6)	45 (80.4)	87 (72.5)	
≥ 40	22 (34.4)	11 (19.6)	33 (27.5)	
Working in the private sector				**< 0.001**
Yes	31 (48.4)	52 (92.9)	83 (69.2)	
No	33 (51.6)	4 (7.1)	37 (30.8)	
Experience at the workplace (in months)				0.159
4-12	16 (25.0)	7 (12.5)	23 (19.2)	
12-47	20 (31.3)	14 (25.0)	34 (28.3)	
48-119	18 (28.1)	20 (35.7)	38 (31.7)	
≥ 120	10 (15.6)	15 (26.8)	25 (20.8)	
Organizational				
Sufficient visit time for coordination between levels				**0.007**
Yes *	11 (17.2)	22 (39.3)	33 (27.5)	
No **	53 (82.8)	34 (60.7)	87 (82.5)	
Attitudinal				
Intention to change jobs in the next six months				**0.024**
Yes ***	14 (21.9)	4 (7.1)	18 (15.0)	
No #	50 (78.1)	52 (92.9)	102 (85.0)	
Salary satisfaction				
Yes ***	31 (48.4)	16 (28.6)	47 (39.2)	**0.026**
No #	33 (51.6)	40 (71.4)	73 (60.8)	
Work satisfaction				0.386
Yes ***	13 (20.3)	8 (14.3)	21 (17.5)	
No #	51 (79.7)	48 (85.7)	99 (82.5)	
Interactive				
PHC physicians are responsible for monitoring the patient in their care course				**< 0.001**
Yes *	45 (70.3)	10 (17.9)	55 (45.8)	
No **	19 (29.7)	46 (82.1)	65 (54.2)	
Know physicians at the other level of care personally				0.807
Yes *	6 (9.4)	6 (10.7)	12 (10.0)	
No **	58 (90.6)	50 (89.3)	108 (90.0)	

(continues)

Table 4 (continued)

Related factors	PNC [n = 64] n (%)	SC [n = 56] n (%)	Total [n = 120] n (%)	p-value
Trust the clinical skills of physicians at the other level of care				**0.024**
Yes *	47 (73.4)	30 (53.6)	77 (64.2)	
No **	17 (26.6)	26 (46.4)	43 (35.8)	

PHC: primary health care; SC: specialized care.

Source: prepared by the authors.

Note: in bold p-value < 0.05.

* Yes = yes and often;

** No = sometimes, very few times and never.

*** Yes = totally agree and agree;

No = neither agree nor disagree, disagree, and strongly disagree.

Discussion

In Brazil, the care coordination attribute has been holding a central place in the organization of the SUS and PHC, especially with the expanded FHS, given the need to provide comprehensive and integrated care. The main actions and policies sought to strengthen FHS's position in the care network, promote the integration between levels and interfaces with care regulation, and strengthen horizontal integration with other care devices in the territory [7]. Even so, the limited nature of such initiatives and the huge loco-regional diversity of the implanted experiences are recognized. This study's results indicate limited coordination of information and clinical management between care levels and a general perception of PHC and SC physicians that there is no articulation of the care provided in the RAS. It is expressed through an experience with insufficient communication between the levels of care, due to the scarce exchange of clinical information between physicians about users, whose care is shared at different levels. In addition, it is evidenced, also, by a low agreement among the professionals in relation to the treatments indicated, mainly, by the medical specialists, which, consequently, brings serious losses for the follow-up of the users between the levels of care. Accessibility difficulties between care levels are also recognized.

Regarding the coordination of clinical information [10,17], the results indicate no frequent exchange of information about patients shared between PHC and SC and are more unfavorable when compared to another similar investigation in a different national scenario [11]. There is a better experience, especially in PHC, regarding the need for clinical information for the care process and, at both levels, the valorization of information, when shared. Such evidence highlight the need and a favorable outlook for the implementation of mutual adaptation clinical mechanisms (feedback-based). These mechanisms facilitate communication and information exchange between professionals for shared care planning using tools, such as direct communication (phone, e-mail), shared information systems (shared electronic medical record), and incentives to use referral counter-referral forms [18].

There were disagreements about inadequate treatments and referrals, especially in the experience of SC physicians, a result similar to that of other studies [11,12,19]. Possible issues in the quality of referrals promote the travel of companions and patients and favor the inappropriate use of specialized services, increasing waiting times, and aggravating difficulties in accessing the therapeutic rearguard [12,20]. Also, discordant therapeutic plans can generate a perception of discontinuity and insecurity regarding the quality of care, which is considered an expression of the lack of care coherence [16,21].

More favorable and concordant results were found regarding test non-repetition, one of the positive effects of clinical coordination [22], perhaps partly explained by the professionals' recognition of insufficient specialized resources in the RAS. This structural factor mitigates access to these SUS procedures and often generates users' direct purchase of services from private providers [19,23].

The results of patient follow-up between care levels were quite negative, with greater intensity in the experience of SC physicians. Professionals recognize the lack of communication: on the one hand, no recommendations or guidelines are sent to PHC, and, on the other hand, PHC physicians do not usually clarify concerns about the users' follow-up with their SC peers. Studies point to an association between the fact that the physician, regardless of his role, recognizes the first level professional as the care coordinator and the establishment of a more responsible and collaborative relationship to articulate care between levels [11,24], which, again, reinforces the need for measures to strengthen the central position of PHC in the network, its professional and social legitimacy in the SUS [25], while ensuring the availability of mechanisms that facilitate formal and informal communication between professionals.

Problems with accessibility to SC, with long waiting times, were mentioned more expressly by PHC physicians who, as responsible for the referral of users and longitudinal monitoring, end up playing the role of observing the barriers of access to other levels [26]. In a study in a health region, Silva et al. [27] show that specialized consultations for vascular surgery, proctology, geriatrics, endocrinology, and neurology were evaluated as non-existent or as a care void, followed by a set of other specialties (ophthalmology, orthopedics, otorhinolaryngology) whose supply was insufficient. Such findings reinforce that the scarcity or even lack of specialized care is a major bottleneck and structural problem of SUS [8,27]. Also, long waiting times for visits with specialists lead to delayed diagnosis and impair the proper treatment of patients [11], contributing to physicians' dissatisfaction with work [28], which is an issue to be observed by SUS administrations.

Regarding working conditions, in the studied scenario, PHC physicians have more unstable relationships, characterized by fixed-term contracts and scholarships (More Doctors Program or residency), which influences the turnover of professionals at this level of care [29]. In the national scenario, the resurgence of ultra-neoliberal policies with weakened labor rights makes it even more challenging to face the turnover, which also implies the loss of trained professionals. The establishment of more stable links with permanent contracts, among other factors, is associated with more positive coordination experiences [16].

Vázquez et al. [11] indicate that job satisfaction and salary influence the perception of care coordination. Although PHC and SC physicians were dissatisfied with their work, almost all specialists did not intend to change jobs, perhaps because they maintained more stable relationships, long stay in municipal health services and concomitant work in the private network. In any case, the intention to stay seems to be a positive aspect for investments in professional qualification through continuing education, valuing, and improving organizational and work conditions, associated with policies for stabilizing labor bonds.

Regarding organizational conditions, sufficient time available during the consultation positively influences perceptions about coordination [11]. Professionals consider the visit time to be insufficient for coordinating activities. Tremendous care pressure is imposed on PHC physicians, as they meet the programmed demand (case of specialists) and the walk-in demand, among other activities arising from the territorial inclusion [30,31]. PHC physicians' functions have expanded, absorbing care previously provided at other levels [32] and, in the Brazilian case, incorporating actions and programs that have been decentralized [33], without proper training in Family and Community Medicine, the gold standard for acting at this care level. Such factors can hinder coordination activities that require proper completion of reference guides and medical records, contacting specialists, among other activities, which are not usually paid by performance-based payment schemes. In this sense, coordination actions will not develop spontaneously without guaranteeing organizational conditions and incentive schemes [32].

Regarding relational factors, physicians from the same RAS do not know each other personally, as specialists do not recognize the role of coordinator of their PHC peer, and many do not trust their clinical skills, a result that is synergistic to others found in this study and which indicate compromised longitudinal follow-up, more appropriately conducted by physicians of the first level [1]. The scarce or inexistent mechanisms that favor direct contact between professionals and turnover allows understanding the issue [11]. Also, confidence in the professionals' skills at the other level contributes to a greater receptivity for shared information [11].

As a limitation of the study, analyses of associations between perceptions about coordination and organizational, labor, and relational factors were not carried out, considering the description and thorough analysis of physicians' experience regarding coordination practices. While losses were negligible, one of the challenges for carrying out studies involving physicians is adherence and availability for participation, requiring repeated returns of the researcher to health services. It is noteworthy that the study used an instrument applied in national and international scenarios, which by revealing the experience and perception of PHC and SC physicians, allows a broad understanding of the coordination of care between levels, which is based on an inter-professional interlevel relationship as one of its pillars and identifies many areas that can be improved.

Final considerations

It is necessary to recognize that the daily sharing of information is not part of the work processes of PHC and SC physicians, and is a field that should be improved. This study indicates that the place held by PHC in the SUS does not yet enable exercising coordination of care between levels in the HCN, which, in turn, face difficulties that have not been overcome with underfunding that hinders access to the therapeutic rearguard services. How would it be possible for PHC to be the care coordinator if other professionals do not recognize it in this place? In the country, public policies that value PHC and its professionals have not kept pace with expanding the ESF [34]. Simultaneously, promoting greater permanence and joint training of professionals could facilitate knowledge of the health care flows and specificities of the RAS, favoring inter-professional interlevel relationships, and the mutual recognition of work processes. The results suggest that the rhetoric of care coordination remains restricted to PHC and is not part of the modus operandi of the RAS, with many inhibiting factors. Policies and actions to ensure more favorable structural conditions for improving access, work, and mutual adaptation need to be implemented systematically, reinforcing the premise that the coordination of care is reliant on arrangements that promote conditions and encourage collaboration between the SUS workers and services.

Contributors

L. S. Mendes was responsible for data collection, design, interpretation of results and writing of the manuscript. P. F. Almeida was responsible for the design, interpretation of results and writing of the manuscript. A. M. Santos and I. C. Samico participated in the critical analysis and revision of the manuscript. J. P. Porto collaborated in the methodology, revision of the manuscript and interpretation of the quantitative data. M.-L. Vázquez participated in the interpretation of results, revision and writing of the manuscript. All authors approved the final version for publication.

Additional informations

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Resumo

O artigo analisa a coordenação da informação e da gestão clínica entre níveis assistenciais na experiência de médicos e explora fatores laborais, organizacional, de atitude frente ao trabalho e de interação relacionados. Trata-se de estudo transversal com aplicação do questionário COORDENA-BR *à amostra de 64 médicos da atenção primária à saúde (APS) e 56 da atenção especializada (AE) da rede pública em um município de médio porte. Os resultados mostram limitada articulação do cuidado na Rede de Atenção à Saúde (RAS), com diferenças entre APS e AE. Não há troca de informações sobre diagnóstico, tratamento e exames. Médicos da APS concordam mais com os tratamentos indicados na AE do que o contrário, porém a repetição de exames não é frequente. Médicos da APS encaminham pacientes para AE quando necessário. A maioria dos médicos da AE não realiza encaminhamento para consulta de acompanhamento, quando necessário, e não faz orientações para a APS, que por sua vez, não esclarece dúvidas com o profissional da AE. Ambos referem longos tempos de espera para consulta especializada. Vínculos laborais temporários são mais frequentes na APS. O tempo de consulta foi considerado insuficiente para a coordenação. A maioria dos médicos não pretendia mudar de emprego, embora seja elevada a insatisfação com os salários e o trabalho. Médicos não se conhecem pessoalmente e os especialistas não identificam o médico da APS como coordenador do cuidado. Políticas e ações para a garantia de condições estruturais de melhoria do acesso, de condições de trabalho e de adaptação mútua mais favoráveis precisam ser implementadas de forma sistêmica para o conjunto dos serviços do Sistema Único de Saúde.*

Níveis de Atenção à Saúde; Assistência Integral à Saúde; Integralidade em Saúde; Avaliação em Saúde

Resumen

El artículo analiza la coordinación de la información y gestión clínica entre niveles asistenciales en la experiencia de médicos y explora factores laborales, organizativos, de actitud frente al trabajo y de interacción relacionados. Se trata de un estudio transversal con aplicación del cuestionario COORDENA-BR*; la muestra cuenta con 64 médicos de la atención primaria en salud (APS) y 56 de la atención especializada (AE) de la red pública en municipios de tamaño medio. Los resultados muestran una limitada coordinación del cuidado en la Red de Atención en Salud (RAS), con diferencias entre APS y AE. No existe intercambio de información sobre diagnóstico, tratamiento y exámenes. Médicos de la APS están más de acuerdo con los tratamientos indicados en la AE que lo contrario, a pesar de que la repetición de exámenes no es frecuente. Médicos de la APS dirigen pacientes a la AE cuando es necesario. La mayoría de los médicos de la AE no realiza derivaciones a consultas de seguimiento, cuando es necesario, y no realiza orientaciones para la APS que, a su vez, no aclara dudas con el profesional de la AE. Ambos refieren largos tiempos de espera para una consulta especializada. Los vínculos laborales temporales son más frecuentes en la APS. El tiempo de consulta se consideró insuficiente para la coordinación. La mayoría de los médicos no pretendía cambiar de empleo, aunque sea elevada la insatisfacción con salarios y trabajo. Los médicos no se conocen personalmente y los especialistas no identifican al médico de la APS como coordinador del cuidado. Políticas y acciones para la garantía de condiciones estructurales de mejoría en el acceso, de condiciones de trabajo y de adaptación mutua más favorables necesitan ser implementadas de forma sistémica para el conjunto de los servicios del Sistema Único de Salud (SUS).*

Niveles de Atención de Salud; Atención Integral de Salud; Integralidad en Salud; Evaluación en Salud

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