REVISTA BRASILEIRA DE MEDICINA DE FAMÍLIA E COMUNIDADE
RBMFC

www.rbmfc.org.br
ISSN 2179-7994

Research Article

Family medicine in Brazil: perspectives and prospects of residents and new specialists from a national training program

Medicina de Família no Brasil: perspectivas e expectativas de residentes e novos especialistas de um programa nacional de formação

Medicina Familiar en Brasil: perspectivas y expectativas de los residentes y nuevos especialistas de un programa nacional de formación

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Abstract

Introduction: Primary Health Care (PHC) is a pillar of health systems, supporting universal coverage and organizing health assistance flows. Thus, Family Medicine (FM) consists of a strategic medical specialty, essentially dedicated to PHC, which supports individuals and families with resolutive, long-term, and holistic care. **Objective:** The aim of the study was to analyze the perceptions and prospections about PHC of participants of the Preceptorship Training Course (PTC)—Universidade Aberta do Sistema Único de Saúde and Universidade Federal de Ciências da Saúde de Porto Alegre, as well as to describe their professional-academic profile. Methods: The research embraced a mixed method (quantitative and qualitative), which was constituted in three phases: "Population Outlining," composed of PTC participants' registration data; "Survey Questionnaire," a virtual survey applied to enrolled and graduated participants; and "Individual Interview," in which virtual interviews were conducted with a sample of participants under the guidance of an open-questions script. These research phases were accomplished from October/2020 to April/2021. **Results:** Throughout its three editions, the PTC had 2,530 participants, evidencing a female predominance with an average age of 33.1 years. In the "Survey Questionnaire" phase, we obtained responses from 232 PTC participants, who were mostly enrolled in residency programs in the southeast region (45.7%) and in municipal institutions (41.4%). In addition, the majority of participants working in PHC reported being very satisfied (24.0%) and satisfied (35.6%) with their work in this healthcare setting. On the other hand, according to 12 interviewed participants, despite the importance of FM contributions to PHC, this medical specialty faces some difficulties, such as unstable working ties, lack of acknowledgement, and low level of knowledge about the specialty on the part of the population and health managers. **Conclusions:** In recent years, FM has grown exponentially in Brazil, fostered by the expansion of government initiatives and the engagement of family doctors. However, attracting and retaining new professionals to this medical specialty represents a major challenge for its future and consolidation, requiring the engagement and commitment of health managers and professionals, academic communities, governments, and society.

Keywords: Education, medical; Family medicine; Primary health care; Medicine.

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Iago Gonçalves Ferreira
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Funding:
no external funding.
Ethical approval:
Human Research Ethics Committee of the Universidade Federal de Ciências da Saúde de Porto Alegre (CAAE: 31351920.2.0000.5345 / Report: 4.164.125).
TCLE:
not applicable.
Provenance:
not commissioned.
Editor:
Monique Bourget
Peer review:
external.
Received: 05/18/2023.
Approved: 04/04/2025.

How to cite: Ferreira IG, Cazella SC, Costa MR. Family medicine in Brazil: perspectives and prospects of residents and new specialists from a national training program. Rev Bras Med Fam Comunidade. 2025;20(47):3775. https://doi.org/10.5712/rbmfc20(47)3775

Resumo

Introdução: A Atenção Primária à Saúde (APS) é um pilar dos sistemas de saúde, apoiando a cobertura universal e organizando os fluxos de assistência à saúde. Assim, a Medicina de Família e Comunidade (MFC) configura-se como uma especialidade médica estratégica, essencialmente dedicada à APS, oferecendo cuidado resolutivo, de longo prazo e holístico a indivíduos e famílias. **Objetivo:** Analisar as percepções e prospecções sobre a APS de participantes do Curso de Formação em Preceptoria (CFP) — UNA-SUS/UFCSPA —, bem como descrever seu perfil acadêmico-profissional. **Métodos:** A pesquisa adotou uma abordagem de métodos mistos (quantitativo e qualitativo), composta por três fases: 'Delineamento da População', baseada nos dados cadastrais dos participantes; 'Questionário de Pesquisa', levantamento virtual aplicado aos alunos e egressos do curso; e 'Entrevista Individual', com realização de entrevistas virtuais com uma amostra dos participantes, sob a orientação de um roteiro de perguntas abertas. Essas fases da pesquisa foram realizadas de outubro/2020 a abril/2021. **Resultados:** Ao longo de suas três edições, o CFP contou com 2.530 participantes, com predominância do sexo feminino e média de idade de 33,1 anos. Na fase "Questionário da pesquisa", foram obtidas respostas de 232 participantes, a maioria vinculada a programas de residência na região sudeste (45,7%) e em instituições municipais (41,4%). Além disso, entre os que atuavam na APS, a maioria relatou estar muito satisfeita (24,0%) e satisfeita (35,6%) com seu trabalho nesse ambiente de saúde. Por outro lado, de acordo com 12 participantes entrevistados, apesar da importância das contribuições da MFC para a APS, a especialidade enfrenta desafios como vínculos empregatícios instáveis, falta de reconhecimento e baixo nível de conhecimento sobre a especialidade por parte da população e de gestores de saúde. **Conclusões:** Nos últimos anos, a MFC tem crescido exponencialmente no Brasil, impulsionado pela expansão de iniciativas governamentais e pelo engajamento dos médicos de família. No entanto, atrair e reter novos profissionais representa um grande desafio para o futuro e a consolidação a especialidade, demandando o engajamento e o comprometimento de gestores e profissionais de saúde, comunidades acadêmicas, governos e sociedade.

Palavras-chave: Educação médica; Medicina de família e comunidade; Atenção primária à saúde; Medicina.

Resumen

Introducción: La Atención Primaria de Salud (APS) es un pilar de los sistemas de salud, apoyando la cobertura universal y organizando los flujos asistenciales. Así, la Medicina Familiar y Comunitaria (MFC) se configura como una especialidad médica estratégica, esencialmente dedicada a la APS, que apoya a los individuos y a las familias con una atención resolutiva, a largo plazo y holística. Objetivo: El objetivo del estudio fue analizar las percepciones y expectativas sobre la APS de los participantes del Curso de Formación de Preceptores (CFP) — UNA-SUS/UFCSPA —, así como describir su perfil profesional-académico. **Métodos:** La investigación adoptó un método mixto (cuantitativo y cualitativo), desarollado en tres fases: "Esquema de la Población", compuesto por datos de registro de los participantes del CFP; "Cuestionario de Encuesta", una encuesta virtual aplicada a los participantes inscritos y egresados; y "Entrevista Individual", en la que se realizaron entrevistas virtuales con una muestra de participantes, guiadas por un guion de preguntas abiertas. Estas fases de la investigación se llevaron a cabo entre octubre/2020 y abril/2021. **Resultados:** A lo largo de sus tres ediciones, el CFP contó con 2.530 participantes, con un predominio femenino y una edad promedio de 33,1 años. En la fase del "Cuestionario de encuesta", se obtuvieron respuestas de 232 participantes, en su mayoría vinculados a programas de residencia en la región sudeste (45,7%) y en instituciones municipales (41,4%). Además, la mayoría de los participantes que trabajaban en APS declararon estar muy satisfechos (24,0%) o satisfechos (35,6%) con su trabajo en este entorno sanitario. Por otro lado, según 12 participantes entrevistados, a pesar de la importancia de las aportaciones de la MFC a la APS, esta especialidad médica enfrenta dificultades como vínculos laborales inestables, falta de reconocimiento y bajo nivel de conocimiento sobre la especialidad por parte de la población y de los gestores de salud. **Conclusiones:** En los últimos años, la MFC ha crecido exponencialmente en Brasil, impulsada por la expansión de iniciativas gubernamentales y el compromiso de los médicos de familia. Sin embargo, atraer y retener nuevos profesionales en esta especialidad médica representa un gran desafío para su futuro y consolidación, lo que requiere la participación y el compromiso de los gestores y profesionales de la salud, las comunidades académicas, los gobiernos y la sociedad.

Palabras-clave: Educación médica; Medicina familiar y comunitaria; Atención primaria de salud; Medicina.

INTRODUCTION

Primary Health Care (PHC) is a pillar of health systems, supporting universal coverage and organizing health assistance flows. In view of this, PHC is based on four core principles: first contact/access, health care coordination, longitudinality, and comprehensiveness[1-4]. Thus, the qualification of health professionals represents a strategic initiative to reach PHC potentialities.

Considering such context, Family Medicine (FM) consists of a strategic medical specialty, essentially dedicated to PHC, which supports individuals and families with resolutive, long-term, and holistic care[5-7]. Given that, since the 1990s, the Brazilian Ministry of Health has implemented several policies and legislations aiming to strengthen the public health system, expanding the provision of physicians in critical specialties, particularly to PHC[3,8-10].

Among the major projects, the Family Health Program ("*Programa Saúde da Família"*) stands as a milestone for PHC in Brazil. This program was implemented in 1994, with the objective of restructuring access and assistance of the public health system through incorporating holistic and interdisciplinary approaches to PHC based on assumptions such as multi-professional care, territorialization, outlining population, preventive medicine, and health promotion[8-12].

Subsequently, in 2013, the "More Doctors" law (*Lei do "Mais Médicos"*) was enacted, aiming to establish priority fields for investments and expansion in the Brazilian health system, which included PHC and FM[13]. As a result, there was an increase of 178% in FM residency programs from 2014 to 2018[14], thus increasing the need for preceptors and tutors specialized in such medical field. Considering this context, the Preceptorship Training Course (PTC) in FM was launched in 2016, with the aim of training FM residents to work in preceptorship activities and thus promote the expansion of FM in Brazil.

The PTC consisted of a 2-year distance education program, organized by the "*Universidade Aberta do Sistema Único de Saúde"* (UNA-SUS) and *"Universidade Federal de Ciências da Saúde de Porto Alegre"* (UFCSPA), with 550 hours of training, distributed in nine units, composed of theoretical modules, clinical cases, integrative activities, and virtual forums. Since 2016, the PTC has offered three editions: first edition (2016–2018), second edition (2018–2020), and third edition (2019–2021)[3,15–18].

Thus, in view of the relevance of FM to PHC and the public health system, this study aimed to analyze the perceptions and prospections about PHC of FM residents and new specialists, participants of the PTC—UNA-SUS/UFCSPA, as well as their professional-academic profile.

METHODS

Study design, participant recruitment, and data collection

The study has adopted a mixed method with an explanatory sequential structure, combining quantitative and qualitative research techniques. The quantitative component sought to analyze the profile and perspectives of participants, whereas the qualitative component focused on deepening the comprehension about the quantitative findings[19,20]. Given this research design, the study was conducted in three phases: "Population Outlining," "Survey Questionnaire," and "Individual Interview," over the period from October/2020 to April/2021, upon approval of the Research Ethics Committee of Federal University of Health Sciences of Porto Alegre—CAAE: 31351920.2.0000.5345/Report: 4.164.125.

In the "Population Outlining" phase, the casuistry consisted of PTC participants' registration data obtained from the Academic Department of UNA-SUS/UFCSPA, covering sociodemographic variables such as course edition, gender, age, state, and city. With regard to the "Survey Questionnaire" phase, participants were recruited by email upon support of FM residency programs, medical entities, and the Academic Department of UNA-SUS/UFCSPA, adopting as inclusion criteria enrolled and graduated participants on the PTC course upon acceptance of the Informed Consent Statement. On the other hand, we excluded participants who abandoned or failed the PTC course due to their disconnection from the UNA-SUS/UFCSPA.

The survey questionnaire was composed of two scopes of variables: "sociodemographic profile," encompassing gender, city, state, and age of participants; and "professional-academic profile," comprising academic degrees and medical undergraduate and residency institutions of the participants. The questionnaire was applied through the Google Forms® platform.

In the "Individual Interview" phase, the recruitment of interviewees was based on parameters recommended by Minayo[21], which establishes recruiting 10 to 15 participants in phenomenological studies, as well as by Creswell and Clark[19] and Nobre et al.[22], who suggest the intentional method for selecting participants. Assuming such parameters, 12 participants were selected from the three PTC editions and each of the five Brazilian regions (North, Northeast, Center-West, Southeast, and South).

The interviews were conducted through the Google Meet® virtual platform, guided by an open-questions script. This interview guide covered topics such as professional experiences in PHC, the role and attributions of FM for health systems, perceptions about the PHC and FM situation in Brazil, and academic and professional perspectives in the fields of FM and health. The interviews were held in Portuguese, with subsequent translation into English by the authors.

Data analysis

The quantitative analysis employed the Pearson's χ^2 test for categorical variables and the Kruskal-Wallis test for discrete variables with asymmetric distribution. The distribution pattern of variables was obtained through the Kolmogorov–Smirnov normality test. The statistical analysis was performed using the IBM SPSS® 23 software, with a confidence interval of 95%, confirmed through the Scheffé's post-hoc test.

The qualitative analysis was based on Bardin's Content Analysis[23], which consists of a set of communication analysis techniques, embracing systematic and objective procedures[23-25]. From the range of methods proposed by Bardin, we adopted the semantical categorical analysis, which encompasses techniques for identifying and coding semantic excerpts in a text, with subsequent classification of these textual units into thematic categories[23].

Thus, with the support of NVivo 12 software, the interview transcripts were subjected to exploratory reading, coding, and classification of textual units into three thematic categories: "Experiences in Primary Health Care," "Perceptions and prospections about Family Medicine and Primary Health Care," and "Training and residency program in Family Medicine."

RESULTS

"Population Outlining" phase

In the "Population Outlining" phase, we identified 2,530 participant registrations, the majority of whom were enrolled in the first course edition (38.5%), whereas the second and third editions presented 33.5 and 28% of participation, respectively. Female participants were predominant in all course editions (65.4%). With regard to the origin of PTC participants, we verified that most of them lived in the Southeast region, while the minority inhabited the Center-West region (Table 1).

"Survey Questionnaire" phase

In the "Survey Questionnaire" phase, we obtained responses from 232 PTC participants, with a higher proportion of the Southeast (44.4%) and South (24.6%) regions. These findings reveal a demographic profile similar to the "Population Outlining" phase. Concerning medical training, the majority of doctors graduated from private/philanthropic (47.8%) and federal (37.1%) institutions between 2016 and 2018, with a mean of 4.9 years of professional practice (Tables 1 and 2).

Table 1. Demographics profile of participants.

"Population Outlining" phase					
		1st edition	**2nd edition**	**3rd edition**	**Total**
Age	Mean	33.47	34.25	31.63	33.21
	SD	5.56	5.924	4.78	5.58
	SE	0.18	0.20	0.18	0.11
	Minimum	26	26	26	26
	Maximum	77	70	63	77
Gender	Male	328	290	257	875
	Female	646	557	452	1,655
Region	North	107	58	60	225
	Northeast	149	180	138	467
	Center-West	70	66	62	198
	Southeast	482	428	327	1,237
	South	166	115	122	403
Total		974	847	709	2,530
"Survey Questionnaire" phase					
			n	**%**	
Course edition	1st edition		60	25.9	
	2nd edition		85	36.6	
	3rd edition		87	37.5	
Age	Mean			32.43	
	SD			6.40	
	Minimum			26	
	Maximum			77	
			n	**%**	
Gender	Male		77	33.2	
	Female		155	66.8	
			n	**%**	
Regions	North		14	6.0	
	Northeast		37	15.9	
	Center-West		21	9.1	
	Southeast		103	44.4	
	South		57	24.6	
Graduation in medicine					
			n	**%**	
Regions	North		28	12.1	
	Northeast		43	18.5	
	Center-West		11	4.7	
	Southeast		111	47.8	
	South		39	16.8	
			n	%	
Institutions	Federal		86	37.1	
	State		32	13.8	
	Municipal		3	1.3	
	Private/Philanthropic		111	47.8	

Continue...

Table 1. Continuation.

"Survey Questionnaire" phase					
Family Medicine residency					
		n		**%**	
Regions	North	16		6.9	
	Northeast	38		16.4	
	Center-West	16		6.9	
	Southeast	106		45.7	
	South	56		24.1	
		n		**%**	
Institutions	Federal	45		19.4	
	State	41		17.7	
	Municipal	96		41.4	
	Private/Philanthropic	50		21.6	
Total		232		100.0	
"Individual Interview" phase					
Interviewee	**Age**	**Gender**	**Course edition**	**Region**	**Institution**
1	35	Female	2	North	Private
2	31	Male	2	South	Federal
3	32	Male	1	Southeast	Private
4	33	Female	2	South	Municipal
5	30	Female	2	Southeast	Federal
6	27	Female	2	North	Private
7	31	Female	2	Center-West	State
8	32	Male	3	Northeast	Federal
9	29	Female	3	Northeast	Private
10	32	Female	3	Northeast	Federal
11	29	Male	1	Center-West	Private
12	30	Female	1	Southeast	Municipal

SD: standard deviation; SE: standard error.

With regard to FM residency, a substantial part of the participants' residency programs was located in the Southeast region (45.7%) and was provided by municipal entities (41.4%) (Table 1). Another relevant aspect observed is the tendency toward regional migration of newly graduated doctors upon entering FM residency, particularly from the North region to the Center-West, Southeast, and South regions (migration rate of 46.4%) (Table 2).

The professional-academic profile evidenced that only 2.2% of them had completed a master's degree and 1.3% a PhD degree, whereas 13.4% of respondents were attending a master's program. Furthermore, it is worth noting that approximately 15% of respondents had decided to enter residency programs of other medical specialties after completing FM residency (Table 2). However, among those who remained in FM, satisfaction with the work in PHC proved to be consistent, with a considerable proportion of participants reporting that they were satisfied (24%) and very satisfied (35.6%) working in PHC (Table 3).

Table 2. Professional-academic profiles of participants.

Professional-academic profile							
Medical undergraduate course							
Year of completion							
Years	**n**	**%**					
2000–2005	3	1.3					
2006–2010	8	3.4					
2011–2015	96	41.4					
2016–2018	118	50.9					
Not reported*	7	3.0					
Total	232	100.0					
Years of professional work							
Mean	4.99						
Median	4.00						
SD	2.51						
Minimum	2.0						
Maximum	19.0						
Regions of origin							
	X	**CI**	**H²**	**p-value****			
North	4.56	3.01–6.10					
Northeast	4.97	3.95–5.98					
Center-West	4.37	3.60–5.15	7.13	0.129			
Southeast	5.08	4.62–5.55					
South	5.13	4.45–5.80					
Postgraduate degrees							
	Completed		In progress		Not enrolled		Total
	n	%	n	%	n	%	
PhD	3	1.3	2	0.9	227	97.8	
Master	5	2.2	31	13.4	196	84.5	
FM residency	213	91.8	19	8.2	—	—	232
Other medical residencies	14	6.0	20	8.6	198	85.3	
Other specialization courses	64	27.6	35	15.1	133	57.3	
Migration tendencies							
Regions***							
Family Medicine residency							
		N	NE	CW	SE	S	Total	Migration rate**** (%)
Medical undergraduate course	N	15	0	6	3	4	28	46.4
	NE	0	36	2	5	0	43	16.3
	CW	0	0	7	1	3	11	36.4
	SE	1	2	1	94	13	111	15.3
	S	0	0	0	3	36	39	7.7
Total		16	38	16	106	56	232	$\overline{X}$=18.97

Continue...

Table 2. Continuation.

		Migration tendencies					
Institutions***							
Family Medicine residency							
	F		S	M	P/Ph	Total	Migration rate***** (%)
Medical undergraduate course	F	28	14	32	12	86	67.4
	S	5	12	9	6	32	62.5
	M	0	0	3	0	3	0.00
	P/Ph	12	15	52	32	111	53.1
Total	45		41	96	50	232	$\overline{X}$=67.67

N: North; NE: Northeast; CW: Center-West; SE: Southeast; S: South; F: Federal; S: State; M: Municipal; P/Ph: Private/ Philanthropic; $\overline{X}$: mean; CI: confidence interval; SD: standard deviation; H: Kruskal-Wallis test; *Data loss due to incomplete filling out of the questionnaire; **Kruskal-Wallis test/post-hoc Scheffé's test/Kolmogorov–Smirnov normality test =0.241 (p=<0.001); ***Pearson's χ^2 test: regions 480.233 (p=<0.001)/institutions 32.353 (p=<0.001); ****Rate of participants who migrated from region to enter in a Family Medicine residency program; ****Rate of participants who migrated from institution scope when entering in a Family Medicine residency program.

"Individual Interview" phase

The "Individual Interview" phase included 12 participants from all five Brazilian regions and from the three course editions. In the interview transcript analysis, we referenced 58 coded units—totaling 60 paragraphs and 3,027 words—which were classified into three thematic categories: the role of family doctors, difficulties and deficits in FM residency programs, and FM professional prospections (Table 4).

Concerning the role of FM, participants considered that the specialty provides a significant contribution to PHC and the health care system, particularly because of its holistic and collective character. From this perspective, one of the interviewees highlighted the essential attributes of a family doctor:

> *(a family doctor needs to be) sensitive… he perceives what the other person is wanting to say, or what the other person is saying… (It is necessary) for him to be patient when supporting demands (…) It is a construction process all the time, primary care requires this, all the time... Caring for others requires this process, of studying all the time, of improving all the time...*[1]
> *Interviewee 10*

Despite its importance for PHC, FM faces difficulties and challenges in being recognized and valued by the medical community, other health professionals, and society, as reported by some interviewees. Possible reasons for this scenario are the predominance of the hospital-centric paradigm in medical training, as well as a lack of knowledge about the duties and competencies of family doctors on the part of society. These positions are emphasized in the excerpts below:

[1] Extract translated by the authors, corresponding to the original excerpt: *"(o médico de família precisa ser) … sensível… que ele perceba o que o outro está querendo dizer, ou o que o outro está dizendo… (é necessário) que ele tenha paciência em relação a acolher a demanda (…) é um processo de construção o tempo todo, a atenção primária exige isso, o tempo todo… O cuidado do outro exige esse processo, de estar o tempo todo estudando, de estar o tempo todo aprimorando..."*

Table 3. Satisfaction with Primary Health Care practices—"Survey Questionnaire" phase.

Satisfaction with Primary Health Care						
Satisfaction scale						
Participants currently working in PHC						
			n	**% of group**		**% of total**
Totally dissatisfied		1	6	2.9		2.6
Dissatisfied		2	15	7.2		6.4
Partially satisfied		3	63	30.3		27.1
Satisfied		4	74	35.6		31.9
Very satisfied		5	50	24.0		21.5
Group total		—	208	100.0		89.6
Participants not currently working in PHC						
		—	24	100.0		10.3
Total			232	—		100.0
Regions						
	n	**Mean**	**SD**	**CI**	**H***	**p-value***
North	15	3.733	0.8837	3.244–4.223		
Northeast	38	2.868	1.4736	2.384–3.353		
Center-West	16	3.125	1.3102	2.427–3.823	13.807	<0.001
Southeast	107	3.255	1.5557	2.955–3.554		
South	56	3.768	1.3483	3.407–4.129		
Brazil	232	3.338	1.4650	3.148–3.528		
Institutions						
	n	**Mean**	**SD**	**CI**	**H***	**p-value***
Federal	45	3.356	1.5690	2,884–3,827		
State	40	3.175	1.7378	2,619–3,731	0.690	0.876
Municipal	96	3.448	1.3048	3,184–3,712		
Private/Philanthropic	51	3.240	1.4507	2,828–3,652		
Total	232	3.338	1.4650	3,148–3,528		

PHC: Primary Health Care; CI: confidence interval; H: Kruskal-Wallis test; SD: standard deviation; *Kruskal-Wallis test for asymmetric distribution of variables, according to the Kolmogorov–Smirnov Normality Test (PHC satisfaction: K–S=0.258, p=<0.001); Note: The post-hoc Scheffé's test showed no significant difference between regions in the PHC Satisfaction Scale, despite the p-value (<0.001) in the Kruskal-Wallis test.

Table 4. Distribution of referenced transcripts and coded units of interview transcripts by categories—"Individual Interview" phase.

Analysis of interview transcripts*				
Categories	**Referenced transcripts**	**Coded units**	**Coded words**	**Coded paragraphs**
"Perceptions and prospections about Family Medicine and Primary Health Care"	5	20	1,187	20
"Training and residency program in Family Medicine"	6	20	892	20
"Experiences in Primary Health Care"	8	18	948	20
Total	19	58	3,027	60

*The referenced transcripts do not correspond to the full content of interview transcripts due to the criteria adopted in the referencing process.

People don't know what a "family doctor" means, (they) even understand what a "general doctor" means, but they don't understand what a "family doctor" is...[2]
Interviewee 8

(In Brazil,) Family Medicine has not been properly disseminated (…) In (medical) school, I think we have a mission... to present what Family Medicine really is! Given that the majority of experiences with undergraduate students, whom I supervised, none of them had been supervised by a Family doctor. [3]
Interviewee 9

About FM residency programs, we observed distinct impressions on the part of participants, reflecting the heterogeneity of Brazil's regions. On the one hand, some interviewees stated positive experiences and adequate educational support during their residency training. On the other hand, several participants reported issues and shortcomings in their programs, including the lack of preceptors with an FM residency degrees and the scarce monitoring by educational institutions, as stated in the excerpt:

(In my practice setting,) no one really understood what a residency (program) meant, some people thought that we were only students, and not doctors… So, there is a lack of communication (…) It would be interesting if the residency coordination had greater regularity in supervising (the practice settings), discussing with working teams… explaining, in general, what the residency process is....[4]
Interviewee 8

Furthermore, another frequently mentioned obstacle was a misconception about residents' roles on the part of health teams and local managers, who tend to consider resident doctors as part of the health staff, thus requiring them to meet healthcare demands and labor obligations:

As a resident doctor, I had felt a lot of pressure about the number of consultations, and later, as a preceptor, I also felt this pressure… to request a certain number of consultations from resident doctors...[5]
Interviewee 11

I think that the initial idea of the manager was... "wow, my health center is going to have two doctors," "wow, the health center is going to produce a lot now" (…) but then we tried to make it clear... "you are going to have two doctors here, but they are two doctors who will work for one...," "You are not going to have excess production, you are going to have a population that will be better assisted… assisted with better quality...."[6]
Interviewee 10

[2] Extract translated by the authors, corresponding to the original excerpt: "*As pessoas não sabem o que é um médico de família e comunidade, (eles) até entendem o que é um 'médico do posto', mas não entendem o que é um médico de família e comunidade...*".
[3] Extract translated by the authors, corresponding to the original excerpt: *"(No Brasil,) a gente não tem uma MFC, sendo divulgada da forma correta (…) Na graduação (médica), eu acho que a gente tem quase uma missão... de apresentar o que é realmente a MFC! Porque a maioria das experiências com os alunos da graduação, que eu recebi, nenhum tinha passado por algum médico que era MFC!"*.
[4] Extract translated by the authors, corresponding to the original excerpt: *"(No meu campo de prática,) ninguém entendia muito bem o que era uma residência, alguns pensavam que a gente era estudante, que a gente não era 'médico formado'... então, faltou essa comunicação (...) seria interessante que a coordenação da residência tivesse uma maior regularidade no acompanhamento (dos campos de prática), conversando com as equipes... explicando, de maneira geral, o que é o processo de residência...".*
[5] Extract translated by the authors, corresponding to the original excerpt: *"como residente, senti uma pressão muito grande em relação número de atendimentos, e depois, como preceptor, eu também senti essa pressão (...) (para) que eu exigisse dos residentes determinada quantidade de atendimentos...".*
[6] Extract translated by the authors, corresponding to the original excerpt: *"acho que a ideia inicial do gestor era... 'nossa, minha unidade de saúde vai ter dois médicos', 'nossa a unidade de saúde vai produzir loucamente agora' (...) mas aí, a gente tratou de deixar claro... 'você vai ter dois médicos aqui, mas são dois médicos que trabalharão por um...', 'Você não vai ter excesso de produção, você vai ter uma população que será melhor atendida... atendida com uma qualidade melhor...'.*

On the other hand, some interviewees reported that, in certain cases, resident doctors are mistakenly recognized as students by preceptors, health staff, and even patients, which impairs the development of their medical autonomy. Thus, although residency is also part of medical training, the development of professional attitudes and skills presupposes the progressive acquisition of responsibility and autonomy.

In terms of career prospects, a prominent share of respondents stated that the expansion of FM residency programs has been controversial, particularly considering the implementation of new programs, which lack adequate support and resources. Moreover, they also highlighted that some government initiatives—such as the "More Doctors" Law—reinforce the notion of PHC as a temporary and transitory professional setting, insofar as such initiatives offer bonuses for entry into residency programs of other medical specialties or make it possible to amortize student debts.

On the role of family doctors in PHC, most of the interviewees consider that these specialists are often compelled to assume the entire responsibility for patients' care, contrasting with the multi-professional approach advocated for PHC. As a consequence, family doctors are recurrently overworked by healthcare demands, often leading to stress and burnout. This situation tends to be aggravated when these specialists have to reconcile clinical and preceptorship attributions, as elucidated:

> *(In my FM residency setting,) we had an absurd demand (for medical care) … an absurd demand of emergencies… an absurd demand of scheduled consultations, which I think is a major trouble of most residency programs in Brazil, with regard to Family Medicine...*[7]
> *Interviewee 10*

DISCUSSION

Family Medicine in Brazil: a critical overview

Since the 1990s, the development of Brazil's health system has been marked by various government laws and policies aimed at promoting strategic health fields and activities, including PHC and FM. Thus, PTC represents a meaningful milestone of this movement, which is evident in the dimension reached by the course, registering 2,530 participants over its three editions.

Considering these findings, the total of PTC participants corresponds to around a third of FM specialists in Brazil, according to the Medical Demography Report 2020[26] (7,149 specialists), or approximately a fifth, based on the recent Medical Demography Report 2023[27] (11,255 specialists). Thus, it is possible to infer that PTC contributed to FM qualification and consolidation, although further studies are required to assess its repercussions.

Notwithstanding the relevance of FM to PHC, it only represents 2.3% of registered specialists in Brazil[27], in addition to low occupancy in its residency programs[18,28]. However, it is worth noting that there was a 246% growth in the number of FM specialists between 2012 and 2022, as presented by Medical Demography Report 2023[27].

[7] Extract translated by the authors, corresponding to the original excerpt: *"(no meu campo prático da residência,) a gente tinha uma demanda absurda (de atendimentos médicos) ... uma demanda absurda de emergências... uma demanda absurda de agendamentos (de consultas) ... eu acho que essa é uma grande queixa da maioria das residências no Brasil, em termos de medicina de família..."*.

Still on the topic of FM demographics, the latest Medical Demography Reports[26,27] evidenced that FM has a predominance of female and young specialists, with an average age of 41.5 years[27], these demographic characteristics are in line with our findings. Furthermore, the reports also indicate a concentration of family doctors in the South and Southeast regions, which reveals an unequal distribution of specialists across the country.

The uneven distribution of family doctors represents an important challenge to be overcome in order to strengthen Brazil's health system, closely related to the difficulty of attracting and retaining physicians in PHC, mainly in remote and peripheral areas[18,28]. In addition, as indicated by some interviewees, massive healthcare demands and excessive workload may constitute discouraging conditions for working in PHC and entering FM.

In this sense, about 40% of participants working in PHC stated partial satisfaction or dissatisfaction with their labor conditions, as noted in the "Survey Questionnaire" phase. Unfavorable working conditions can have a negative impact on the mental health and quality of life of professionals, undermining the attractiveness of an FM career.

In a medical career, choosing a specialty constitutes a pivotal decision for students and young doctors, being influenced by several factors, including personal characteristics, academic experiences, professional prospections, and even ideological conceptions[29-32]. Thus, the first contacts of students with medical specialties are crucial opportunities to instigate or repel their interest in certain fields.

Considering this perspective, most interviewees expressed a sense of responsibility in properly introducing FM to new generations, converging with studies that have shown the influence of consistent experiences in PHC on students' decisions to become family doctors[33-35].

Nonetheless, PHC is often perceived as an initial and temporary work, being assumed as a provisional phase until starting a career in other medical specialties[36,37]. This trend was noted by Scheffer et al.[26], who reported that 42% of newly graduated doctors worked in PHC until entering into residency programs. In line with these observations, Miranda et al.[36] indicated that 78% of medical students considered PHC as an initial step in their professional career.

Regarding the difficulties of a career in FM, Mello et al.[32] highlighted the lack of distinction between family doctors and general practitioners on the part of employers, the misunderstanding about FM attributions by a large part of society, and the precariousness of labor ties. In this sense, studies about FM professional placement in northern and southeastern Brazil evidenced that between 40 and 60% of family doctors were in unstable and/or temporary employments[38,39], which is convergent with some interviewees' statements.

Although the new version of the "More Doctors" Program[40] promoted inducements for attracting professionals to PHC—such as financial and educational incentives—these measures are ephemeral in nature, inasmuch as the maximum period of program participation is 4 years—extendable for the same period—which does not represent a stable career for PHC doctors.

In sum, considering this context, the engagement of physicians to embrace a PHC career still remains a complex challenge in Brazil, requiring government policies and laws to guarantee stable working ties, adequate wages, continuing medical education, and proper working settings.

The future of Family Medicine: the challenges to new generations' engagement

FM presents a broad scope of knowledge and practices shared with other medical specialties. In contrast to the biomedical paradigm, FM introduces alternative approaches to the medical field, encompassing topics such as longitudinality, community, person-centered care, and complementary health practices[6,41,42].

From this standpoint, most of the participants believe that FM has the potential to restructure medical practices and rationalities, even contributing to the improvement of other medical specialties. Therefore, medical schools should offer curricula that appropriately incorporate disciplines dedicated to PHC and FM, with qualified lectures and assessments, as well as an adequate distribution of students per preceptor.

However, it is worth noting that, in addition to practical experience and theoretical knowledge, choosing an FM career involves personal and intrinsic characteristics, including social commitment, empathy, cultural competence, as well as interest in doctor–patient relationship, holistic and longitudinal care, and heterogeneity of clinical conditions, as stated by Rodrigues et al.[33]. Although these aspects were also mentioned by interviewees, more studies are needed to determine which factors determine the choice for FM.

Other relevant issues to be addressed involve FM training, given the lack of proper educational support in various residency programs and misunderstandings about the resident doctors' role. However, it should be noted that this situation is not peculiar to FM, being also observed in other medical specialties. Thus, it is necessary for managers and preceptors to understand that resident doctors are not "extra professionals," that is, they are not in health services to supply staff shortages.

In recent decades, in parallel with PHC strengthening policies, several researchers and policymakers have engaged in producing knowledge about FM and PHC, seeking to develop a particular epistemological field for the specialty[6,43]. However, despite this trend, studies have shown that family doctors have limited involvement in research and postgraduate activities[38,43-45], which is convergent with our findings that evidenced a low percentage of participants with master's and doctoral degrees or even enrolled in postgraduate programs.

Given this panorama, the family doctors' engagement in academic and research activities represents a significant movement for FM consolidation in order to strengthen its image both in the medical sphere and in society.

CONCLUSION

Over the last decades, several government initiatives and policies have been implemented in order to promote the development of PHC nationwide, in an effort to improve Brazil's health system. Among the main initiatives are the Family Health Program, the "More Doctors" law, and the PTC, which have led to substantial transformations in the health system's organization.

However, despite the expansion of PHC and FM in Brazil, the medical specialty still faces prominent professional challenges, including unstable labor ties, misunderstandings about FM attributions, and complex working conditions in PHC settings, such as massive healthcare demands and excessive workload. In spite of these adversities, our findings revealed an optimistic view about FM among PTC participants, who highlighted FM's contributions and importance to medicine and PHC.

Regarding the study limitations, we underline the relatively low rate of responses in the "Survey Questionnaire" phase, which may be related to data collection during the COVID-19 pandemic. In addition, the participation of resident doctors and new specialists in this study may represent a favorable bias to participants' perceptions about FM. As a recommendation, further studies could include other PHC stakeholders, such as senior family physicians, health managers, policymakers, and FM researchers.

Given these considerations, it is noted that FM has great potential for enhancing medicine and PHC, as well as providing holistic care and higher clinical resolution for patients. Thus, the consolidation of FM requires engagement and commitment on the part of health managers and professionals, academic communities, governments, and society.

ACKNOWLEDGMENTS

The authors would like to thank the Academic Department of UNA-SUS/UFCSPA for the support and data availability for this research.

CONFLICT OF INTERESTS

Nothing to declare.

AUTHORS' CONTRIBUTIONS

IGF: Conceptualization, Data curation, Formal Analysis, Investigation, Methodology, Validation, Writing – original draft, Writing – review & editing. SCC: Conceptualization, Formal Analysis, Supervision, Validation, Writing – review & editing. MRC: Conceptualization, Formal Analysis, Supervision, Validation, Writing – review & editing.

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