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Family Health Postgraduate Program in the Brazilian northeast: repercussions in the professional exercise of postgraduates

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Abstract *Brazilian postgraduate education has grown in recent years, but there is a knowledge gap regarding whether the course's planned educational objective is being achieved. We aimed to evaluate the contribution of the Postgraduate Program in Family Health for the postgraduates' professional practice. This is a cross-sectional study conducted with 225 postgraduates from October 2019 to July 2020. Data were collected by an online questionnaire containing different sociodemographic and educational variables and competencies developed in the master's degree program and identifying the domains of Health Promotion Competencies. Most of the participants were female (78.2%), nurses (58.2%), public servants (64%), and SUS workers (93.3%). Two hundred and twenty-two (98.7%) postgraduates' final paper theme built on a practice-related issue. A high mean score was observed for all competencies analyzed. The mean scores for domains in Health Promotion competencies were high. We can conclude that the postgraduate program has contributed satisfactorily to the formation of critical, active masters, with competencies developed and being realized in professional practice.*

Key words *Competency-Based Education, Educational Assessment, Family Health Strategy*

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Introduction

Family health (SF) is an expanding study area and is fertile soil for the production of knowledge and practice for the strengthening of Primary Health Care (PHC). The organic theory-practice relationship is its fertilizer for the feedback and qualification of management, care, training, and scientific production actions.

On the other hand, health is a complex issue because it involves social determinants whose capillarity influences the process of caring for users, affecting the health of people, groups, and communities. Training within the Family Health Strategy (ESF) must consider this complexity and be aware of its interdisciplinary and intersectoral essence.

However, the compartmentalized and fragmented knowledge and doing, as Morin[1] warns, and the dissociation between manual and intellectual work – consequences of modernity, as defended by Giddens[2], have contributed to the loss of a view of global issues and the holistic sense of men.

Professional training and the continuing education of health professionals should include elements that meet the sustainable objectives of ensuring a healthy life and promoting well-being for everyone at all ages[3].

The ESF, the structuring government strategy for PHC in the country, implemented in 1994, aims to develop integrated care actions through multidisciplinary health teams, individuals and groups, focusing on health promotion, prevention, and recovery from diseases, in a delimited territorial space[4].

A health-promoting practice should transcend the provision of medical care services. Among the challenges to materialize it is incorporating the broad concept of health due to determining factors affecting people's health and life conditions and addressing them beyond the lack of disease factor.

Health and education initiatives have been carried out to develop professionals, giving rise to increased social responsibility and competencies so that they are established as subjects committed to the pursuit of quality and equity in care, increasing access and promoting citizenship[5].

In this sense, noteworthy are strategies that mobilize different institutions, guided by converging objectives, a contemporary interinstitutional arrangement. The network design harbors the Northeast Family Health Training Network (RENASF), created in 2009, which gathers higher education and technical institutions, health and science and technology secretariats located in the Northeast of Brazil[6].

In its first decade of life, RENASF's mission was to enhance teaching and research in SF to improve the development of PHC health workers, establishing itself robustly from concrete actions deeply involved and committed to defend the Brazilian Unified Health System (SUS) and strengthen PHC. In the meantime, we highlight the Postgraduate Program in Family Health (PPGSF), which has already trained 400 masters in SF and had its doctoral proposal approved in 2019 by the Coordination for the Improvement of Higher Education Personnel (CAPES). It is currently preparing for the selection of its first doctoral class.

The regional Professional Master's in Family Health (MPSF) course is a pioneer in this type of *stricto sensu* professional training to work in the SUS, and its pedagogical orientation is the recognition of health services as producers of knowledge, andragogy, and meaningful learning mediated by participatory methods as an inducer of the development of critical-analytical competencies[6,7].

In this context, education and health care impose themselves in a "good thinking" culture in the different spheres of life, as advocated by Morin[8]. The "good thinking" would be "the way of thinking that allows us to take ownership of text and context, the being and its environment, the local and global, the multidimensional, in short, the complex, that is, human behavior conditions. It also allows us to understand objective and subjective conditions"[8](p.100) and reconnect knowledge and practice.

The MPSF was conceived from this perspective, aiming at "good thinking". Focusing on training processes and targeting the development of competencies for qualified practice in the ESF, it promotes a reconnection between knowledge and action, seeking a solution to concrete problems related to care, management, and public policies. The aim is to generate knowledge and research that arise from real needs and are characterized as possible direct interventions to transform reality.

According to Ribeiro[9], the evaluation process of professional master's degrees must consider their specific results concerning the impact of the course on the student. It is understood that, in seeking to examine its formative process and its scope in the daily practice of the graduate, this study is also an important and essential "good thinking" act.

Ciência & Saúde Coletiva, 26(5):1713-1725, 2021

Understanding evaluation is vital to education. "Evaluating implies two articulated and inseparable processes: diagnosing and deciding. A decision is not possible without a diagnosis, and a diagnosis without a decision is an aborted process"[10](p.2).

A study on the evaluation of graduates from other areas, such as Engineering, showed a strong relationship between the graduate course, the professional career, and the graduates' perception about the program's contribution. However, greater social inclusion of students was recommended[11]. Also, the importance of knowing the professional path after completing the course and entering the job market was highlighted in an evaluation of graduates from the Geology and Geochemistry graduate program[12].

In Collective Health, a study[13] on the evaluation of Brazilian graduate programs illustrates the bias of emphasis on scientific production in the Epidemiology subarea, which causes inequalities and ambiguities in this field, and tensions and weakens other subareas, such as the Social and Human Sciences in Health and Health Policy, Planning, and Management. This trend of knowledge production and an emphasis on Epidemiology can result in weakened care in PHC.

The professional master's degree in Brazil started with Ordinance 17/2009[14], which promoted the realization of proposals, emphasizing training in the world of work. In the same year, the *Galway Consensus Conference: International Collaboration on the Development of Core Competencies for Health Promotion and Health Education* highlighted the importance of developing competencies to work in PHC[15].

These mentioned initiatives strengthen the Brazilian PHC model, which differs from other places globally, by forming an interdisciplinary and multidisciplinary team. Based on the premise of the incipient studies evaluating competencies in professional postgraduate interprofessional programs, this study contributes to the discussion on the theme by evaluating the oldest networked *stricto sensu* program in Brazilian public health.

Thus, based on the perspectives and theoretical foundations exposed, this paper aims to evaluate the contribution of the PPGSF in the professional practice of MPSF's graduates. In this sense, the MPSF becomes the object of this work, and the question now addressed builds on whether the planned formative objective of the course is achieved, as French thinker of the sixteenth century Montaigne recalled, "a well-shaped brain is better than a full brain".

Methods

This is an analytical, quantitative, cross-sectional study conducted from October 2019 to July 2020 with graduates from RENASF's PPGSF. The program is developed in five states in the Northeast (Maranhão, Piauí, Ceará, Rio Grande do Norte, and Paraíba).

The study population corresponded to the graduates of the first three MPSF classes, making 400 masters, SF professionals, distributed in the training institutions, with 94, 128, and 178 masters per class, respectively. In turn, the study sample consisted of 225 graduates. We adopted being an MPSF-RENASF graduate as an inclusion criterion. Those who reported working professionally outside the national territory were excluded.

Two instruments were used for data collection: i) registration form for the Program's graduates, to identify the workplace; ii) online questionnaire, in which everyone was invited, via e-mail, to participate in the research. After reading and accepting the Informed Consent Form (ICF), the participants responded to the survey using the *Moodle* platform. The questionnaire consisted of five parts, as follows: 1) Sociodemographic information (marital status, skin color, age, time since graduation and others); 2) Data related to their work process (location, mobility between jobs, seniority, income, and job satisfaction); 3) Dissemination and use of the master's thesis (TCM); 4) Competencies developed in the MPSF – knowledge, skills, and attitudes; and 5) Identification of the Health Promotion Competencies (CPS) domains of the Health Promotion Competencies Project (CompHP) in the formation of the MPSF[16].

Initially, in data analysis, an Excel spreadsheet was built to spatialize the graduates' workplace. The data was then exported to Qgis 7.4.4, and thematic maps were built. We used the attribution of scores to analyze the competencies developed in the MPSF and the identification of the domains of health promotion competencies, which could vary from one to five, where five was equivalent to achieving competency fully, and one, not achieving competency.

STATA 14.0 was used for the other data. The frequencies and means of the investigated variables, and their standard deviations (SD), were calculated. The paired t-test was employed to verify differences in the mean scores attributed to the competencies developed during the MPSF and realized in professional practice after the course ends. The one-way ANOVA test was used

to compare the means given for the master's assistance in developing CompHP domains (related to health promotion competencies). This same test was used to assess the influence of the profession and the professional bond of the respondents with the competencies developed. The significance level $p \leq 0.05$ was used for statistical tests.

The research followed the ethical rigor referred to in the National Health Council's Resolution (CNS) 466/2012[4]. It was approved by the Human Research Ethics Committee of the University of Fortaleza (UNIFOR).

Results

Two hundred twenty-five of the 400 graduates of RENASF's MPSF responded to the questionnaire. It is important to note that classes 1 and 2 responded to the questionnaire in October 2019, when 5 and 2.5 years had passed, respectively. Class 3, in turn, answered the questionnaire in July 2020, 6 months after the end of the course.

Most respondents were female (176; 78.2%), nurses (131; 58.2%), public servants (144; 64%) and SUS workers (210; 93.3%). Of these, 126 (56%) claimed to work in the ESF and 48 (21.3%) in municipal or state SUS management (Table 1). One hundred twenty respondents self-declared brown (53.3%) and 93 (41.3%) white.

Regarding the most identified professional activity, 138 (61.3%) said it was the ESF, 37 (16.4%) mentioned municipal/state management, 34 (15.1%) teaching, 12 (5.3%) SUS hospitals, and four (1.78%) reported other activities (Table 1).

About the masters' thesis (TCM), more than one-third (34.2%) published it, and this number was significantly higher in the first and second classes. More than half of the graduates (119; 52.9%) reported having presented their findings to the population, the Family Health Team (EqSF), or management. Two hundred and twenty-two (98.7%) graduates' TCM topic stemmed, at least in part, from a problem/issue related to the ESF practice, and 208 graduates (92.4%) claimed that their TCM collaborated, at least in part, with the improvement of the health service (Table 1).

The graduates of the three MPSF-RENASF's classes are distributed throughout 118 municipalities in the states part of the network: 52 in Ceará, 20 in Rio Grande do Norte, 18 in Maranhão, 15 in Paraíba, and 13 in Piauí (Figure 1). They are also found in other municipalities and states, five in Pernambuco and one each in Sergipe, Alagoas, and Tocantins.

Table 2 presents the mean scores and their respective standard deviations regarding the competencies developed during the master's course for the three classes of graduates. A high mean score is observed for all competencies assessed in all classes. Noteworthy is that, in general, professionals assigned higher scores for development than the use/realization of competencies in their professional practice.

Graph 1 summarizes the competencies' scores used in the masters' work activity.

We investigated whether the graduate's profession influenced the competencies developed in the MPSF. Compared to the others, doctors reported having developed the following competencies less: developing health education activities; producing and using health information; articulating and implementing interprofessional actions; and adequate communication with users or the work team. Dentists and doctors also reported having developed the following competencies less than other professions: realizing care and care management; and managing the work process.

MPSF graduates were asked whether the course helped them develop CompHP domains. The results showed high scores in all domains. No difference was found between classes for most competencies' domains, except for domain 4, related to communication, which, had more support from the master's degree to be developed in Class 2 according to the graduates (Table 3).

Discussion

At the postgraduate level, analyzing and reflecting on the training of professionals working in the SUS seeks to reconnect knowledge and practice between two public policies (SUS and Education/postgraduate course) that are seen as cornerstones for a fairer and more equitable social development since the health reform movement. This articulation involves multiple spheres of management, care, research, university extension, and health training, thus covering analyses of substantial importance. While these two policies have been consistent and nuclear over time, they did not present formal intersection points. The impacts generated by them are mainly related to forming good and committed professionals, teachers and researchers, and professional master's degrees spearhead linking postgraduate courses with the SUS[17].

Ciência & Saúde Coletiva, 26(5):1713-1725, 2021

Table 1. Sociodemographic, professional and work-related data of graduates from the first three classes of the Professional Master's Program in Family Health (MPSF) of the Northeast Family Health Training Network (RENASF).

	Class 1		Class 2		Class 3		Total	
	n	%	n	%	n	%	n	%
Gender								
Male	11	24.44	6	10.53	32	26.02	49	21.78
Female	34	75.56	51	89.47	91	73.98	176	78.22
Profession								
Doctor	6	13.33	1	1.75	6	4.88	13	5.78
Nurse	22	48.89	38	66.67	71	57.72	131	58.22
Dentist	11	24.44	14	24.56	27	21.95	52	23.11
Other	6	13.33	4	7.02	19	15.45	29	12.89
Currently working in the SUS								
Yes	38	84.44	54	94.74	118	95.93	210	93.33
No	7	15.56	3	5.26	5	4.07	15	6.67
Works in another place besides the ESF								
Yes	18	40	20	35.09	56	45.53	94	41.78
No	10	22.22	20	35.09	40	32.52	70	31.11
Not applicable	17	37.78	17	29.82	27	21.95	61	27.11
Professional relationship with the ESF								
Tenured	23	51.11	38	66.67	83	67.48	144	64
Contracted	4	8.89	1	1.75	10	8.13	15	6.67
Consolidated Labor Laws (CLT)	1	2.22	1	1.75	2	1.63	4	1.78
No relationship			1	1.75	1	0.81	2	0.89
Other			2	3.51	5	4.07	7	3.11
Not applicable	17	37.78	14	24.56	22	17.89	53	23.56
Activity individual most identifies with								
ESF	24	53.33	34	59.65	80	65.04	138	61.33
Municipal/State Management	9	20.00	9	15.79	19	15.45	37	16.44
Teaching	11	24.44	11	19.3	12	9.76	34	15.11
SUS Hospital	1	2.22	3	5.26	8	6.5	12	5.33
Other					4	3.25	4	1.78
Master's Conclusion Paper (TCM) has been published in scientific journals or books								
Yes	26	57.78	28	49.12	23	18.7	77	34.22
No	19	42.22	29	50.88	100	81.3	148	65.78
Was your TCM presented, in any way, to the population, the Family Health team, or management?								
Yes	23	48.89	38	66.67	58	47.15	119	52.89
No	22	51.11	19	33.33	65	52.85	106	47.11
Did the theme of your TCM originate from a question/ problem related to the Family Health Strategy practice?								
Yes	40	88.89	50	87.72	105	85.37	195	86.67
Partly	4	8.89	7	12.28	16	13.01	27	12
No	1	2.22	0	0	2	1.63	3	1.33

it continues

Table 1. Sociodemographic, professional and work-related data of graduates from the first three classes of the Professional Master's Program in Family Health (MPSF) of the Northeast Family Health Training Network (RENASF).

	Class 1		Class 2		Class 3		Total	
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Your TCM collaborated in improving the health service								
Yes	22	48.89	36	63.16	78	63.41	136	60.44
Partly	17	37.78	17	29.82	38	30.89	72	32
No	6	13.33	4	7.02	7	5.69	17	7.56
Did you find it difficult to use the knowledge developed by your TCM in your workplace?								
Yes	5	11.11	4	7.02	23	18.7	32	14.22
Partly	9	20.00	12	21.05	16	13.01	37	16.44
No	31	68.89	41	71.93	84	68.29	156	69.33

Source: Elaborated by the authors.

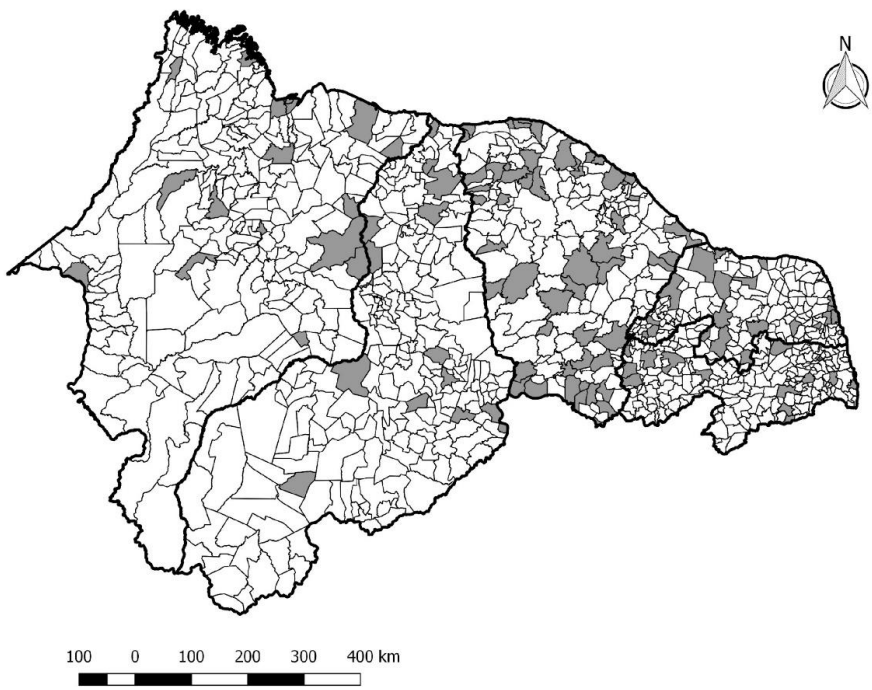


Figure 1. Distribution of graduates of MPSF-RENASF, by municipalities, in the states of Maranhão, Piauí, Ceará, Rio Grande do Norte and Paraíba. Northeast, 2020.

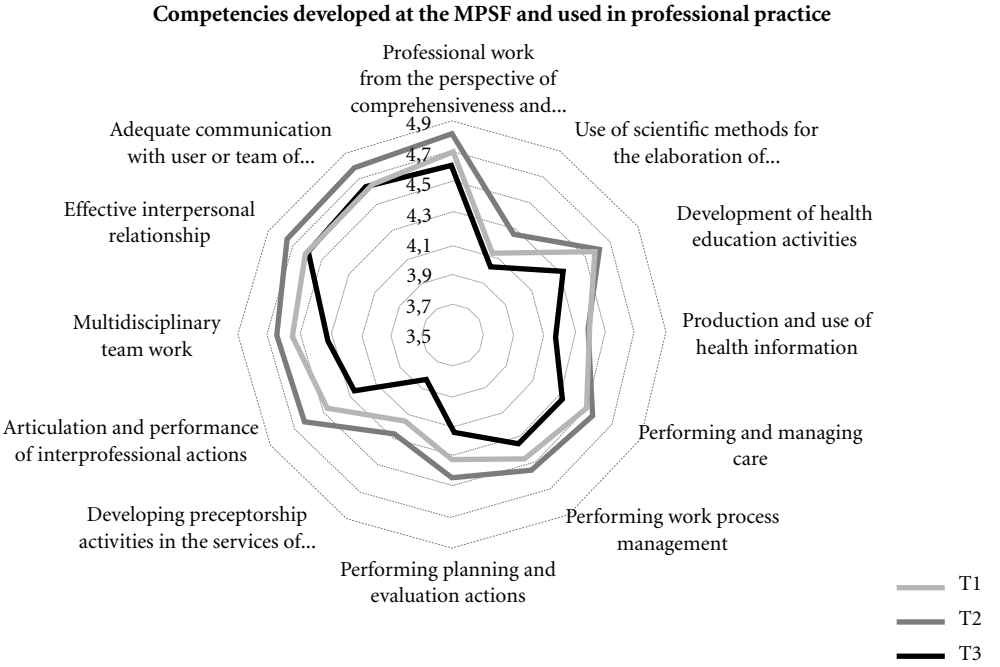
Source: Author's elaboration (2020).

Table 2. Mean scores given by the graduates of the first three classes of the Professional Master's in Family Health (MPSF) of the Northeast Family Health Training Network (RENASF) for the competencies developed during and used after the end of their training.

Competencies	Class 1			Class 2			Class 3			Total (Todas as Turmas)		
	Developed	Currently realizing	p*	Developed	Currently realizing	p*	Developed	Currently realizing	p*	Desenvolveu	Está realizando	p*
	Mean (SD)	Mean (SD)		Mean (SD)	Mean (SD)		Mean (SD)	Mean (SD)		Média (DP)	Média (DP)	
Professional performance in the perspective of comprehensiveness and humanization	4.67 (0.52)	4.70 (0.46)	0.5697	4.79 (0.45)	4.82 (0.38)	0.5318	4.65 (0.71)	4.61 (0.64)	0.5173	4.69 (0.62)	4.68 (0.55)	0.9118
Use of scientific methods for the elaboration of a research or intervention project	4.38 (0.72)	4.09 (0.84)	0.0309	4.44 (0.71)	4.26 (0.92)	0.0316	4.45 (0.76)	4.01 (1.05)	0.0001	4.44 (0.74)	4.09 (0.98)	<0.0001
Developing health education activities	4.73 (0.50)	4.60 (0.63)	0.2003	4.75 (0.43)	4.61 (0.66)	0.109	4.63 (0.72)	4.34 (0.89)	0.0004	4.68 (0.61)	4.46 (0.80)	<0.0001
Production and use of health information	4.49 (0.63)	4.40 (0.72)	0.4857	4.60 (0.62)	4.36 (0.80)	0.0081	4.44 (0.76)	4.17 (0.93)	0.0031	4.49 (0.70)	4.26 (0.86)	0.0002
Realizing care and care management	4.49 (0.69)	4.48 (0.74)	0.8443	4.61 (0.62)	4.56 (0.66)	0.103	4.46 (0.75)	4.33 (0.76)	0.0916	4.54 (0.70)	4.42 (0.74)	0.0336
Realizing the management of the work process	4.51 (0.66)	4.43 (0.85)	0.456	4.61 (0.62)	4.52 (0.76)	0.1821	4.41 (0.80)	4.33 (0.85)	0.2713	4.48 (0.73)	4.40 (0.83)	0.0794
Planning and evaluating actions	4.38 (0.75)	4.32 (0.74)	0.6427	4.63 (0.55)	4.43 (0.78)	0.0172	4.40 (0.72)	4.13 (0.98)	0.0013	4.45 (0.69)	4.24 (0.89)	0.0001
Developing preceptorship activity in health services	4.04 (1.00)	4.16 (1.21)	0.7289	4.58 (0.68)	4.27 (1.22)	0.0042	3.96 (1.22)	3.83 (1.34)	0.0588	4.13 (1.09)	4.02 (1.29)	0.0059
Coordinating and implementing interprofessional actions	4.42 (0.78)	4.45 (0.73)	0.9999	4.62 (0.62)	4.62 (0.59)	0.9999	4.55 (0.80)	4.26 (0.97)	0.0005	4.54 (0.75)	4.39 (0.86)	0.0021
Interdisciplinary team work	4.62 (0.58)	4.55 (0.63)	0.3229	4.70 (0.57)	4.66 (0.61)	0.4435	4.61 (0.70)	4.34 (0.94)	0.0034	4.64 (0.64)	4.47 (0.82)	0.0015
Effective interpersonal relationship	4.71 (0.55)	4.62 (0.61)	0.2527	4.75 (0.47)	4.74 (0.55)	0.7843	4.65 (0.69)	4.61 (0.66)	0.4076	4.69 (0.62)	4.64 (0.63)	0.2107
Adequate communication with users or the work team	4.73 (0.54)	4.64 (0.53)	0.2528	4.75 (0.51)	4.77 (0.54)	0.7989	4.63 (0.66)	4.64 (0.59)	0.759	4.68 (0.60)	4.67 (0.57)	0.9045

* Paired T-test - Developed vs currently realizing.

Source: Elaborated by the authors.



Graph 1. Mean scores of the competencies developed at the MPSF and which are being carried out (performed) by the graduates of the first three classes of the Professional Master's in Family Health (MPSF) of the Northeast Family Health Training Network (RENASF) at their workplaces.

Source: Author's elaboration (2020).

The issue to be addressed and debated is knowing which and how these health, education, and research professionals' actions have repercussed and contributed with answers to the health problems and challenges toward the consolidation of the SUS, the improved quality of life of people, and social development. Thus, in light of the results, we can observe that, when developing essential competencies for a qualified practice in its work environment and proposing an alliance between the study object and its students' professional practice, RENASF's MPSF has been successful regarding the social feedback of its formative process and research, given that most masters affirm that they used in their workplace the competencies developed in the master's degree and their education has somehow improved the health services.

It is salutary to highlight the predominance of females in the three MPSF classes, corroborating trends observed in other health studies[18-21]. The role of women related to the gift of caring, educating, and serving, throughout history, may be linked to the increasing feminization of health professionals[22] compared to the technological and engineering fields, for example, which still have a reduced female scope. Although women's presence is growing, stereotypes segregating women and a sexual division of labor[23] persist.

During the course, professionals from various health fields received the title of masters, with Nursing showing significant participation. While Medicine and Nursing have been part of the ESF since the beginning, the percentage of doctors in the MPSF was low. The non-requirement of qualification as a specialist to work in PHC services in the SUS can justify this since the Family and Community Medicine (FCM) specialty represents only 1.4% of specialist doctors in Brazil[24]. There seems to be an inconsistency between the needs of the SUS and doctors' choice of professional careers, an outlook revealed by the number of vacant residency spots. According to this study[24], only 1,043 were held by a first-year resident, which means an idle rate of around two-thirds. The percentage of idle FCM vacan-

Ciência & Saúde Coletiva, 26(5):1713-1725, 2021

Table 3. Mean scores given by graduates of the first three classes of the Professional Master's in Family Health (MPSF) of the Northeast Family Health Training Network (RENASF) for the support of MPSF in the development of the COMPHP's areas of competence.

Did your master's degree in family health help you develop this series of competencies?	Class 1	Class 2	Class 3	Total	p*
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
1. Possibility of change: Enable individuals, groups, communities or organizations to build capacity for action to promote health, and thus improve health and reduce health inequalities.	4.44 (0.62)	4.67 (0.55)	4.42 (0.76)	4.49 (0.69)	0.0768
2. Health advocacy: Claim with and on behalf of individuals, communities, and organizations to improve health, well-being, and training for health promotion action.	4.31 (0.82)	4.53 (0.76)	4.37 (0.79)	4.39 (0.79)	0.3261
3. Partnership: Work in collaboration with areas of knowledge/disciplines, sectors, and partners to increase the impact and sustainability of health promotion actions.	4.42 (0.72)	4.61 (0.59)	4.31 (0.88)	4.41 (0.79)	0.0543
4. Communication: Communicate health promotion actions effectively, using appropriate techniques and technologies for different audiences.	4.40 (0.78)	4.72 (0.53)	4.45 (0.69)	4.51 (0.68)	0.0249
5. Leadership: Contribute to the development of a shared vision and strategic directions for health promotion action.	4.44 (0.72)	4.63 (0.52)	4.41 (0.79)	4.48 (0.72)	0.1621
6. Diagnosis: Diagnose the needs and potential partnership with social actors/partners in the context of political, economic, social, cultural, environmental, behavioral, and biological determinants that promote or compromise health.	4.47 (0.73)	4.60 (0.53)	4.43 (0.77)	4.48 (0.71)	0.3423
7. Planning: Develop health promotion goals and objectives that can be measured, based on the diagnosis of needs and potentialities in partnership with the actors/social partners.	4.42 (0.75)	4.61 (0.53)	4.34 (0.83)	4.43 (0.75)	0.0774
8. Implementation: Implement effective, efficient, culturally sensitive and ethical health promotion actions, in partnership with the actors / social partners.	4.33 (0.77)	4.54 (0.54)	4.34 (0.79)	4.39 (0.73)	0.1887
9. Evaluation and research: Use appropriate evaluation and research methods in partnership with social actors/partners to determine the scope, impact, and effectiveness of health promotion actions.	4.24 (0.88)	4.47 (0.60)	4.31 (0.82)	4.34 (0.79)	0.287

*One way ANOVA test.

Source: Elaborated by the authors.

cies is almost 20% of the total idle vacancies in the country.

The low social prestige, low wages, absence of labor rights, little contact with specialist doctors during the course, low ESF resolution, substandard working conditions, and the limited possibility of professional advancement were the negative influences for selecting the FCM[25].

In the study on screen, respondents corresponded to 64% of graduates, which is positive, because there is a more significant potential to multiply the exercise of complex and systemic competencies in the MPSF required for PHC when qualifying as effective public agents linked to a given territory. Noteworthy is that the PPGSF has activated management regarding the impor-

tance of a permanent qualification and training to work in the ESF by formally requiring the release of managers when the professional enrolls in the selection process. This initiative generates the need for a reasoned response by managers, signaling the level of commitment to professional training.

Noteworthy is the capillarity achieved by the MPSF since graduates are present in 118 municipalities in the five states offering vacancies in the course. This capillarity transcends the Brazilian Northeast since there are already graduates in the North of the country, in Tocantins. As the MPSF has a curriculum focused on developing competencies, with graduates in the most different places can favor the production of knowledge and the transformation of health services.

The scores obtained for the 12 competencies analyzed were high, and this finding is significant. However, the mean scores decrease when questioned whether the competency developed in the course is currently being implemented in their work.

It is known that a model and a profile of competencies alone are not sufficient for the implementation of excellent practices, although they are a significant advance in this path. It is, therefore, necessary to invest in discussions and reflections on the existing models and references and investigate how these are being used and operationalized in the daily life of health and education services[26].

It is worth noting that the authors are not aware of studies evaluating competencies in graduates, especially in multiprofessional programs, which limits the discussion of these findings with the literature. Thus, the developed study contributes to a scientific production on the theme, highlighting the importance of this training modality in re-signifying professional health practice in PHC.

The new definition of health professional capacity building in developing health promotion actions warns that personal will alone is insufficient to achieve effective practice in this field. Organizations should equally support and promote these actions at work. The scope of organizations for professionals to develop their health promotion practice includes policies and partnerships to implement and respond to emerging health needs[27].

One cannot deny that it is necessary to incorporate specific competencies in the professionals' training/performance so that they may be able to respond to the demands of the current setting in the field of SUS health practices. This study pointed out that dentists and, mainly, doctors developed to a lesser extent some competencies proposed by the Master's course. It is necessary to investigate further what could be influencing this result, whether the profession itself or other particular aspects of each master's student.

In this context, Silva et al.[28] points out that the ESF doctors report difficulties in carrying out these activities, predominantly the curative-rehabilitative ones, despite understanding that prevention must be part of the ESF activities. One of the factors pointed out is that this perspective is the most encouraged during medical training, rooted in doctors and laypeople. In the same vein, a study that characterized the dental surgeon's work process in the ESF reveals that they further develop the curative and individual actions, showing low integration with the team[29].

The complexity of health care, especially in PHC, requires training that promotes sharing experiences, allowing a comprehensive view, and recognizes individual and collective professional competencies to solve users' problems. Interprofessional education has been identified as one of the ways to solve these issues. In a study with teachers, workers, and students in PHC[30], the authors state that interprofessional training favors the comprehensive view of care and interprofessional and user communication. However, communication between workers and users must be guided by the logic of promoting access to care practice beyond technical understanding, that is, favoring a dialogue rooted in a comprehensive approach to health.

A study carried out in Porto Alegre showed a significant relationship between specialized PHC training and continuing education in the quality of services provided at this level of care[31]. In another study on the presence of PHC attributes, the complexity involved in its implementation is related to the training of health professionals, fixation, and organization of the work process. In this study, the importance of training and preparing professionals for this health care model is significant[32].

In this study, high scores were observed for all CompHP domains, in which the graduates affirmed the collaboration of the Master's course for this purpose. The set of CompHP Competencies encompasses values, skills, and knowledge required for health promotion practice, organized into 46 competencies falling into nine domains: (1) Favoring changes, (2) Advocacy in health, (3) Partnership, (4) Communication, (5)

Ciência & Saúde Coletiva, 26(5):1713-1725, 2021

Leadership, (6) Diagnosis, (7) Planning, (8) Implementation and (9) Evaluation and Research[16]. With these requirements, a competent professional to carry out actions in health promotion in the work environment will develop all the CompHP domains in his work.

The CompHP emerges as an essential reference for the health training processes, advancing in overcoming the institutional logic of the theory-practice dichotomy and, thus, promoting a network of knowledge between various fields of knowledge and strengthening the development of professionals with competencies to act in the face of health determinants. The search for articulation between theory and practice in health education is hindered by the lack of synchronization between academic education and the actual practice of daily life in health service networks[33].

Studies that signal the progress and trajectory of health promotion actions in training processes are relevant to allow constant adaptations to the actual local needs of the population and contribute to the training of professionals to give back to society social transformation means[34,35].

A study evaluating master's graduates in PHC[36] identified a high percentage of graduates who remained in PHC and public service and developed course-related work activities. Also, as in the research by Gomes and Goldemberg[37] and Engstrom et al.[36], and our graduates develop management and teaching activities, it is still at work in the ESF that most of these identify themselves. The authors of this paper view favorably these facts, as it means that the competencies developed during the course will be used in the qualification of PHC, with the potential to improve care and the population's health indicators.

Conclusions

One of the contributions of the study is the influence of this training on professional practice and the demonstrated production of knowledge that emerged from the field of work. The MPSF has contributed to professional training, developing competencies adopted by graduates in their professional practice and research that generates essential knowledge and responds to challenges in the daily practice of the SUS and, in particular, in the ESF.

We can conclude that the training positively influences the alumni practice setting, and the PPGSF points to the creation of an environment conducive to the training of workers in the face of the new health paradigm, such as quality of life and no longer the absence of disease, to develop health care strategies and actions with comprehensive care to health needs, in order to promote it considering social determinants and conditions.

Collaborations

SAS Nuto, APGF Vieira-Meyer, NFC Vieira, RWJF Freitas, KPC Amorim, MSA Dias, MIO Vasconcelos and MFAS Machado participated in the design, planning, and data collection, analysis, and interpretation. They also contributed to the elaboration, review, and approval of the final version of the paper.

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