Esc Anna Nery 2025;29:e20250107



SPECIAL ISSUE

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# Social networks and care for older adults with dementia in the Family Health Strategy[a]

## *Redes sociais e cuidado de pessoas idosas com demência na Estratégia Saúde da Família*

## *Redes sociales y cuidado de personas mayores con demencia en la Estrategia de Salud de la Familia*

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## Abstract

**Objective**: to map the social care networks for older adults with dementia within the Family Health Strategy and to identify the hubs in this process. **Method**: this is a descriptive study with a quantitative approach based on social network analysis. Data collection was carried out through an online questionnaire sent to 23 professionals from two Family Health teams (A and B) and a multiprofessional team from a family clinic in Rio de Janeiro, between January and March 2021. The UCINET and Netdraw software supported the analysis of the metrics and the creation of the sociogram. **Results**: in team A's network, bidirectional relationships were established by higher-education professionals, with the physician at the center, acting as the main person responsible for the therapeutic project, revealing a biomedical model of care focused on complaints and prescriptions. In team B, connections directed toward "family member", "user", and "community" indicated that all professionals identified these actors as important. **Final considerations and implications for practice**: although the study found fragile and medicalized networks, it is understood that there is strength and potential in these networks, provided that the principles of universality, comprehensiveness, and equity are respected and practiced by professionals.

**Keywords**: Patient Care; Primary Health Care; Dementia; Aged; Social Networking.

## Resumo

**Objetivo:** mapear as redes sociais de cuidado das pessoas idosas com demência na Estratégia Saúde da Família e identificar os atores centrais no processo. **Método:** trata-se de estudo de natureza descritiva com abordagem quantitativa, a partir da Análise de Redes Sociais. A coleta de dados foi realizada por questionário *online*, enviado a 23 profissionais de duas equipes (A e B) Saúde da Família e uma equipe multiprofissional de uma clínica da família do Rio de Janeiro, entre janeiro e março de 2021. Os *softwares* UCINET e *Netdraw* apoiaram a análise das métricas e a criação do sociograma. **Resultados:** observou-se que, na rede da equipe A, as relações bidirecionais foram estabelecidas por profissionais de nível superior, com o médico no centro como responsável principal do projeto terapêutico, revelando um cuidado biomédico com foco na queixa e prescrição. Na equipe B, os disparos efetuados em direção a "familiar", "usuário" e "comunidade" revelaram que todos os profissionais sinalizaram esses atores como importantes. **Considerações finais e implicações para a prática:** apesar de o estudo ter encontrado redes frágeis e medicalizadas, entende-se que existe força e potência nestas, desde que os princípios de universalidade, integralidade e equidade sejam respeitados e praticados pelos profissionais.

**Palavras-chave:** Assistência ao Paciente; Atenção Primária à Saúde; Demência; Pessoa Idosa; Rede Social.

## Resumen

**Objetivo**: mapear las redes sociales de cuidado a las personas mayores con demencia en la Estrategia de Salud de la Familia e identificar los actores centrales en el proceso. **Método**: se trata de un estudio de naturaleza descriptiva con un enfoque cuantitativo a partir del análisis de redes sociales. La recolección de datos se realizó mediante un cuestionario en línea enviado a 23 profesionales de dos equipos (A y B) de Salud de la Familia y un equipo multiprofesional de una clínica de la familia de Río de Janeiro, entre enero y marzo de 2021. Los programas UCINET y Netdraw apoyaron el análisis de las métricas y la creación del sociograma. **Resultados**: se observó que en la red del equipo A las relaciones bidireccionales fueron establecidas por profesionales de nivel superior, con el médico en el centro como principal responsable del proyecto terapéutico, lo que revela un cuidado biomédico enfocado en la queja y la prescripción. En el equipo B, las conexiones dirigidas hacia "familiar", "usuario" y "comunidad" mostraron que todos los profesionales señalaron a estos actores como importantes. **Consideraciones finales e implicaciones para la práctica**: a pesar de que el estudio identificó redes frágiles y medicalizadas, se entiende que existe fuerza y potencial en ellas, siempre que los principios de universalidad, integralidad y equidad sean respetados y practicados por los profesionales.

**Palabras clave**: Atención al Paciente; Atención Primaria de Salud; Demencia; Anciano; Red Social.

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Submitted on 08/04/2025.
Accepted on 12/03/2025.

DOI:https://doi.org/10.1590/2177-9465-EAN-2025-0107en

## INTRODUCTION

Alzheimer's disease is one of the leading causes of dementia worldwide, affecting millions of people and profoundly impacting their families and caregivers.[1] In Brazil, it is estimated that around 1.5 million individuals live with the disease, most of them over 65 years of age.[1] This reality gains relevance in light of the 2022 Census data, which indicates an older population of 31.2 million Brazilians, corresponding to 14.7% of the total population – an increase of 39.8% compared to 2012.[2]

Dementia progression has implications that transcend the biological realm, impacting daily family and social life.[3] Living with the illness causes objective and subjective changes in family relationships, generating overload, impasses, and conflicts.[3] In this context, caring for older adults with dementia presents a challenge not only for family members, but also for healthcare professionals, who must deal with the complexity and continuity of care.[3]

In this regard, Primary Health Care (PHC) is a point in the Health Care Network (In Portuguese, *Rede de Atenção à Saúde* - RAS), which is configured as a strategic public health device.[4] In the context of elder health, PHC aims to ensure comprehensive care focused on improving quality of life through the management of comorbidities, chronic non-communicable diseases, and functional disabilities.[5] Among older adults in situations of greater vulnerability, PHC's responsibility also stands out in guiding and training caregivers and family members, promoting adherence to therapies and reducing risks associated with the care process.[5]

Furthermore, recently, Law 14,878, of June 4, 2024, established the Brazilian National Policy for Comprehensive Care for People with Alzheimer's Disease and Other Dementias, reinforcing the importance of person-centered care based on ethical principles and respect for the autonomy of individuals and their legal representatives.[6] This policy highlights the need to consider psychological, social, and clinical aspects in care, as well as providing a support network for families, thus promoting older adults' continued residence in their home environment.[6]

Given this scenario, the care of older adults with dementia is built collectively through the network relationships established among Family Health team (FHt) professionals, users, family members, and the community who, by connecting, share knowledge and responsibilities.[3] These relationships can be analyzed from the perspective of Social Network Analysis (SNA), which allows us to understand the structure and dynamics of these interactions, identifying the hubs, links, and connections.[7]

Thus, understanding the social networks involved in the care of older adults with dementia in PHC allows for a broader and more integrated view of the care process.[8] This study's relevance lies in the need to understand and strengthen existing care networks in the territory, considering that population aging and the increase in dementia represent a growing challenge for the Brazilian public health system.[8] Investigating these networks contributes to improving care planning and management, promoting greater integration among services, support for caregivers and family members, and quality of life for older people.[8] Furthermore, this study aligns with the Sustainable Development Goals (SDGs) of the United Nations' 2030 Agenda, such as SDG 3 ("Good health and well-being: ensure access to quality health and promote well-being for all at all ages").[9] In this sense, this study aimed to map the social care networks of older adults with dementia in the FHt and to identify the hubs in this process.

## METHOD

This is a descriptive study with a quantitative approach based on SNA. This choice was based on SNA's emphasis on patterns and objectivity in relationships, enabling the mapping of information flow and communication patterns, and revealing the actors in prominent positions.[10]

The study setting was a family clinic (FC) in the northern zone of Rio de Janeiro, RJ, located in a programmatic area with 13 years of operation in the territory. The health unit is part of the RAS as a PHC unit, responsible for approximately 23,000 registered citizens.[11] FC is composed of five FHts, each with a physician, a nurse, a nursing technician, community health workers (CHW), a dental surgeon, an oral health technician (OHT), an oral health assistant (OHA), an administrative assistant, endemic disease assistants, and a multidisciplinary team (e-multi), totaling 45 active professionals.

Data collection took place from January to March 2021, through a structured online questionnaire sent to 19 professionals from two teams (herein referred to as A and B) out of the five belonging to the researched health unit, and four professionals from e-multi who worked at the unit, totaling 23 participants. All 23 invited professionals agreed to participate in the research, with no withdrawals. From the FHts, two physicians, two nurses, two nursing technicians, ten CHWs, one dentist, one OHA, and one OHT participated. From the e-multi team, a social worker, a physical education professor, a nutritionist, and a physiotherapist participated. The inclusion criteria, which culminated in the selection of FHts A and B, considered the length of service at the unit, low staff turnover, and epidemiological profile/representativeness of registered older adults, i.e., the teams that served the largest number of older adults with dementia, allowing for greater experience and life experiences. Teams that were incomplete (due to vacations or absences, for example) were excluded, as this could introduce bias.

Concerning the data collection instrument, aimed at mapping and graphically representing the social network of professionals involved in managing the care of older adults with dementia, as well as obtaining sociodemographic and personal information, a single question was asked via an electronic questionnaire: "Which people do you involve in the process of providing care to an older adult with dementia?". The questionnaire was completed using the Google Forms® platform and sent via email and messaging application (WhatsApp®) to all research participants.

Data analysis included professional sociodemographic characterization, carried out through descriptive analysis using tables. Subsequently, data were stratified and grouped by category. For this stage, Microsoft Excel® was used. From this analysis,

variables such as sex, age group, occupation, and education level emerged.

A sociogram (graphical representation of the social network) made it possible to identify all the actors mentioned based on the questionnaire responses. The most central and peripheral actors were identified, highlighting the roles they occupy. Thus, it was possible to understand and explore social interactions from a perspective of care production for older adults with dementia. The UCINET software and its Netdraw graphic extension were used to develop metrics and create the sociograms.

To understand and explore social interactions, two relevant metrics from SNA were employed. The first was the network centrality measure, which includes degree centrality, proximity centrality, and betweenness centrality, and aims to identify the actors with the greatest prestige and authority, as well as the different roles played in the network in relation to access to care for older people with dementia, such as hubs, information brokers, peripheral actors, and bridges.[12,13] The second was the network density measurement, aimed at measuring the connections and communications existing in the network, characterizing them as direct, indirect, or weak and susceptible to external interference.[7,12] Through SNA, the aim was to measure the patterns of relationships and intersections among actors, based on their contacts and the mapping of their social configurations.

The study was conducted respecting ethical precepts (Resolutions 466/2012[13] and 510/2016[14]). It was approved by the Research Ethics Committee of *the Universidade do Estado do Rio de Janeiro* and the Municipal Health Department of Rio de Janeiro (Certificate of Presentation of Ethical Consideration 36307820.8.3001.5279).

## RESULTS

In relation to participant characterization, there was a predominance of female professionals (n = 21 participants; 91.3%) compared to male professionals (n = two participants; 8.7%), which supports the findings of a previous study, highlighting the feminization of the health field.[10] Twenty-one (91.3%) professionals are from the state of Rio de Janeiro, and most are married (n = 15 professionals – 65.2% married; n = five professionals – 21.7% single; n = three professionals – 13.1% legally separated). The predominant age range in the sample is 26 to 35 years (n = 17 professionals; 73.9%), followed by the 36 to 45 age range (n = six professionals; 26.1%), therefore, the majority are young adults.

Concerning occupation, there is a predominance of CHWs (n = ten professionals; 43.4%), while four (17.3%) are e-multi professionals (one social worker, one physical education professor, one pharmacist, and one psychologist); two (8.7%) are physicians; two (8.7%) are nurses; two (8.7%) are nursing technicians; one (4.3%) is a dental surgeon; one (4.3%) is an OHT; and one (4.3%) is an OHA. Concerning education, 11 (47.8%) have completed higher education, and 12 (52.2%) have completed secondary education. Professionals in general (n = 18 professionals, 78.2%) have worked at the unit for more than three years; however, there is significant representation (n = eight professionals; 44.5%) of CHWs among them.

### Social networks for the care of older adults with dementia

Actors were coded considering the team to which they were linked, as well as the perspective from which they found themselves within the care network for older adults with dementia, as illustrated in Figures 1 and 2.

Analyzing the network formed by team A, it is noted that the unit's physician (PHY PR) is the most frequently mentioned actor, followed by the nursing technician (NT PR) and the manager. The relationship among these actors is bidirectional, meaning that these three professionals mention each other. Special mention should be made of CHWs, who establish unidirectional connections, meaning they do not fully interact with the other actors in the network. Some CHWs are not mentioned, and are therefore only network members, as are community and family members.

It is observed that, within team A's network, bidirectional relationships are established by professionals with higher education, and these are seen as relevant and positive, particularly regarding the care of older adults with dementia. However, these relationships lack qualitative data capable of identifying the logic of the intuitive care model, as well as whether it considers the social determinants of health and is based on comprehensive care. Furthermore, it is important to highlight the need for team leaders to develop strategies that allow for greater participation and integration of e-multi in care management, in addition to CHWs, family members, and the older adult themselves. A physician at the center of the network may reveal a care approach based on the biomedical model, focusing on complaints, medicalization, and prescription of specific treatments, which can inhibit the participation of other professionals and the family in decision-making and collective discussion of a therapeutic plan.

Unlike what was observed in the previous team, in the network of team B, a horizontality of relationships and greater cohesion among actors is noticeable. There is movement from the physician and nurse towards mid-level actors, in which CHW1 QU and CHW2 QU stand out, maintaining a reciprocal relationship.

In team B, the nurse (NUR QU) is contacted by all actors, establishing a bidirectional relationship among them, except with CHW3 QU. CHW3 QU is also not contacted by the physician (PHY QU), who establishes bidirectional relationships with all other CHWs, as well as with NUR QU. However, although CHW3 QU is not contacted by PHY QU and NUR QU, he is in contact with them, which suggests involvement and action by the actor in the face of older adults with dementia in the territory. Understanding the unidirectional flow from CHW3 QU to PHY QU and NUR QU within the team is necessary, as this is the only member not mentioned by professionals. It is understood that a bidirectional relationship could enhance this actor's actions, favoring care production. The communication channels directed towards family members, users, and the community are also highlighted.

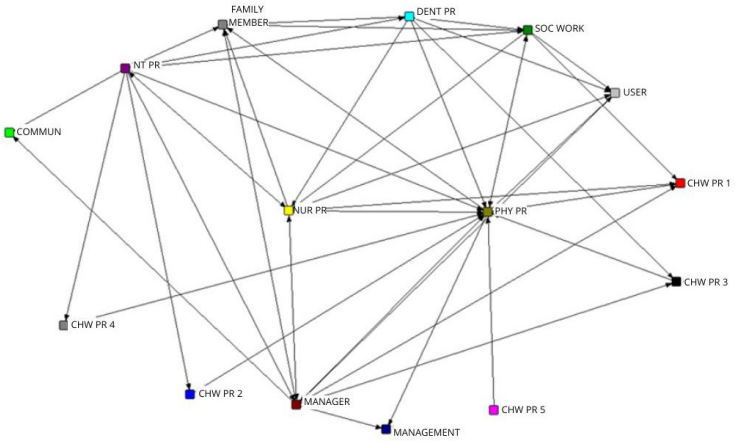


**Figure 1.** Care network for older adults with dementia – team A. Rio de Janeiro, RJ, Brazil, 2021.
Legend: COMMUN - community; NT PR - nursing technician; DENT PR - dentist; SOC WORK - social worker; CHW - community health worker; NUR PR - nurse; PHY PR - physician.

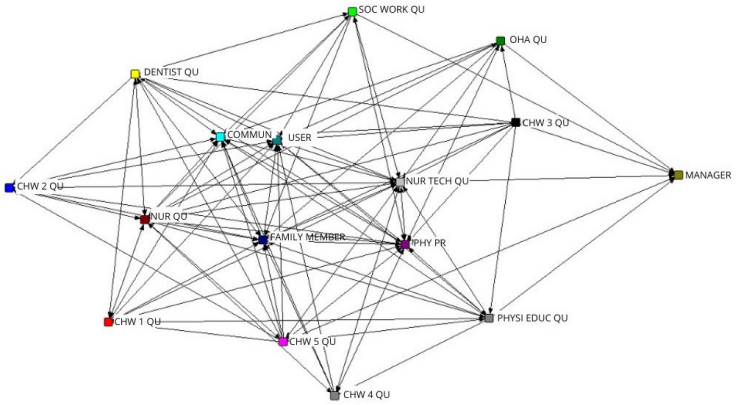


**Figure 2.** Care network for older adults with dementia – team B. Rio de Janeiro, RJ, Brazil, 2021**.**
Legend: CHW QU - community health worker; SOC WORK QU - social worker; OHA QU – oral health assistant; NUR TECH QU - nursing technician; NUR QU - nurse; PHY QU - physician; PHYSI EDUC QU - physical education professor; COMMUN - community.

It is also observed that the manager does not appear as the most frequently mentioned figure by stakeholders. This data reveals that the team is able, in some way, to manage cases of older adults with dementia without the intervention of local management, even though the latter has extensive knowledge of the unit's internal processes and close dialogue with stakeholders from other points in the RAS.

## Density of social care networks for older adults with dementia

Density, as a metric used in the study, assesses the connectivity of nodes within social networks, indicating how close the graph is to being complete, with all possible edges linked to it.[5] In UCINET, density metric is represented as a percentage: the closer to 100%, the greater the network connectivity. Team A presented a density of 18%, while team B presented 38%.

Team B's higher density indicates more open communication, encouraging participation from all members, as well as more widespread information sharing, although connection is still fragile. In contrast, team A shows a tendency towards centralization of information. In the context of the FHt, it is crucial to highlight the importance of communication, with teamwork being necessary to achieve the expected comprehensiveness and effectiveness, as advocated by the regulations and protocols that guide care at this point in the RAS.

## Centrality of social care networks for older adults with dementia

Table 1 presents the centrality measure for actors belonging to teams A and B.

As shown in Figure 3, for team A, the actors represented by the nodes with the highest degree centrality are those that

appear with the largest symbols in the network (physician, family member, manager, and nursing technician).

The degree centrality of family (n = 42) and medical (n = 57) actors can be expressed by team A professionals' perception regarding the importance of family participation in the care of older adults with dementia. The work process of this team is centered on physicians, who take over coordination of care. Physicians are sought after due to their indegree and is active because they mobilize new actors, given their outdegree.

Nursing technicians are proactive in seeking out other actors (outdegree 8) to engage in the process and support physicians in managing care. However, it is not possible to clarify the nature of the collaboration provided: is it technical and procedure-based? Is it permeated by discussions and analysis of complex cases?

**Table 1.** Centrality measures of actors belonging to Family Health teams A and B. Rio de Janeiro, RJ, Brazil, 2021.

| Team | Actor | Indegree | Outdegree | Degree |
|---|---|---|---|---|
| Team A | CHW 01 | 4 | 1 | 28 |
| | CHW 02 | 1 | 1 | 07 |
| | CHW 03 | 1 | 1 | 07 |
| | CHW 04 | 1 | 1 | 07 |
| | CHW 05 | 0 | 1 | 00 |
| | Manager | 3 | 8 | 35 |
| | Management | 2 | 0 | 14 |
| | User | 3 | 0 | 21 |
| | Social worker | 2 | 4 | 14 |
| | Dentist | 1 | 3 | 07 |
| | Family member | 6 | 0 | 42 |
| | Nursing technician | 1 | 8 | 35 |
| | Community | 2 | 1 | 14 |
| | Physician | 8 | 5 | 57 |
| | Nurse | 3 | 4 | 21 |
| Team B | CHW 01 | 3 | 5 | 20 |
| | CHW 02 | 3 | 7 | 20 |
| | CHW 03 | 2 | 5 | 13 |
| | CHW 04 | 1 | 3 | 06 |
| | CHW 05 | 3 | 7 | 46 |
| | Manager | 3 | 0 | 13 |
| | Management | 0 | 0 | 00 |
| | User | 0 | 0 | 20 |
| | Social worker | 4 | 4 | 26 |
| | Dentist | 3 | 6 | 20 |
| | Dental assistant | 7 | 4 | 26 |
| | Family member | 6 | 0 | 40 |
| | Nursing technician | 1 | 6 | 06 |
| | Community | 6 | 0 | 00 |
| | Physician | 4 | 5 | 36 |
| | Nurse | 7 | 9 | 48 |
| | Physical educator | 3 | 2 | 20 |

**Source:** the authors.

Furthermore, it is observed that nursing technicians exhibit a low indegree, meaning they only seek help, not being sought out. This frequent search for support may indicate a need for continuing education.

Family members are constantly involved in this network, perhaps due to the inherent dependency inherent in the dementia process. However, in addition to analyzing the key actors, it is necessary to encompass the prescriptive and protocol-based practices used in guiding care.

Managers' central role (08) stands out, being the most sought-after actor by the team. The manager's figure emerges as a guide in more complex cases, being frequently called upon, particularly when there is a need to send information to other points in the RAS, which gives them the perception of problem-solving ability. Nurses are perceived as having some degree indegree (3) and outdegree (4).

CHWs' centrality degree is low, placing them in a peripheral position, except for CHW 01, who stands out. CHW 01's centrality is attributed to their connection to the team, knowledge about the needs of older adults with dementia, and being a point of reference for family members in the area.

Figure 4 represents team B, with actors represented with the highest degree centrality being those that appear with larger symbols in the network: nurse and physician.

Nurses (n = 48) and physicians (n = 36) stand out as leaders and guides in complex cases on team B, possibly due to their length of service and problem-solving abilities. The work process is not concentrated on a single professional, which can

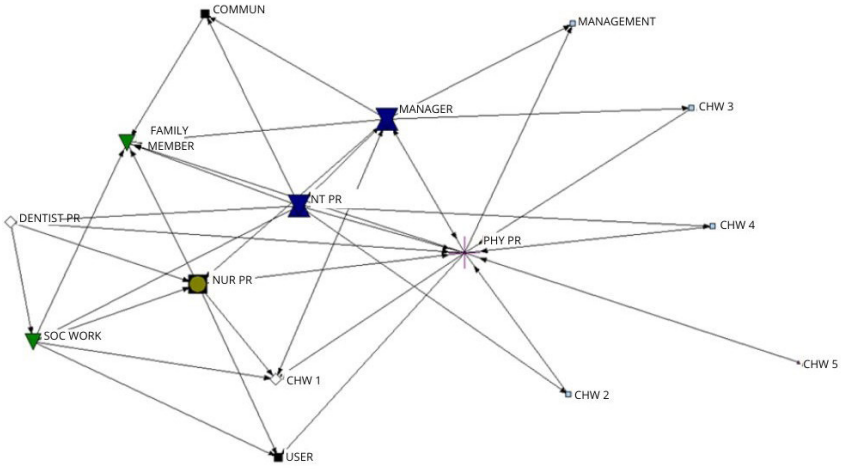


**Figure 3.** Social network of professionals from team A according to degree centrality. Rio de Janeiro, RJ, Brazil, 2021**.**
Legend: CHW - community health worker; NUR PR - nurse; SOC WORK - social worker; DENT PR - dentist; NUR TECH PR - nursing technician; PHY PR - physician.

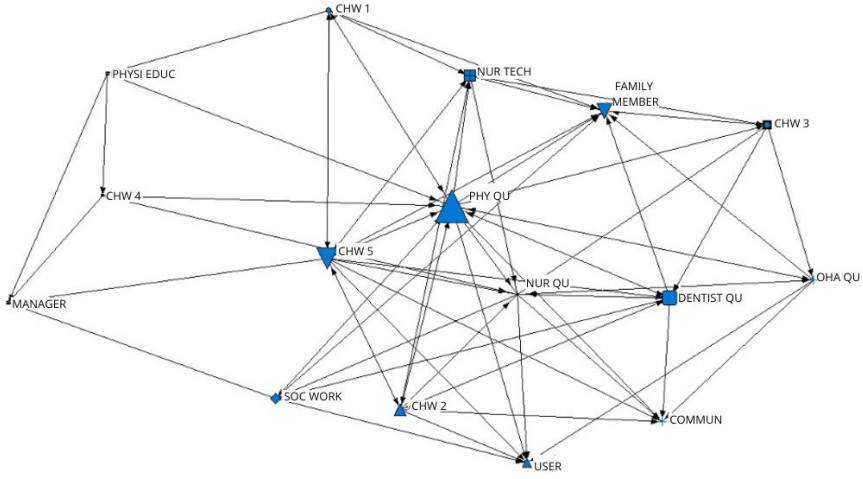


**Figure 4.** Social network of professionals from team B according to degree centrality. Rio de Janeiro, RJ, Brazil, 2021.
Legend: PHYSI EDUC - physical education professor; CHW - community health worker; OHA QU – oral health assistant; NUR QU - nurse; PHY QU - physician; SOC WORK - social worker; NUR TECH - nursing technician.

be observed by analyzing the other team members' skill levels, whether at the higher or middle level. All present similar values, suggesting a more facilitated flow of information. The role of managers was not highlighted.

## DISCUSSION

### Centralization of care and horizontality of actions in health

The social network that emerged is considered complete, symmetrical, and unimodal. It is complete because it involves all actors within the institution and because it is possible to identify the types of relationships that exist among professionals. It is symmetrical because the flow of communication is bidirectional. It is unimodal because the relationships among actors occur in the same space and within the same social structure.[15] As for team A, considering the bidirectional relationships established by senior professionals, the physicians' centrality in the network, the dependence on unit managers, and the peripheral participation of other professionals and the family, it is worth reflecting, from SNA's perspective, on the "weak ties" and "strong ties" that can be identified in the network.[16]

Tie strength is related to the number of times an actor is activated and activates others – as the process is repeated, the tie strengthens. Conversely, if an actor is only activated and does not interact with others, the tendency is for it to become peripheral in the network.[17]

Networks with "weak ties" are essential for the dissemination of new ideas; they are networks made up of people with diverse and unexplored experiences, and have the potential to manage complex and challenging situations.[17] In team A, therefore, it is necessary to bring the less involved actors closer to discussions and processes, in order to broaden therapeutic possibilities.

Team B, on the other hand, exhibits horizontal relationships and greater cohesion among its members, with increased participation from mid-level stakeholders. Furthermore, engagements directed towards family members, users, and the community deserve highlighting, as does the fact revealed by SNA that the team is not dependent on the unit manager for case management. Team cohesion, regardless of professional category, and recognition of these stakeholders are fundamental elements for care committed to the needs and specificities of older adults with dementia, especially in the implementation of the Individual Therapeutic Project (In Portuguese, *Projeto Terapêutico Singular* - PTS) and adherence to treatment.[18]

Adopting SNA perspective allows us not only to map who connects with whom, but also to understand actors' "structural positions", the "communication flows", and the "tie strength" as central dimensions of the dynamics of care. The social network represents a dynamic relational field in which the centrality of certain nodes and the density of ties condition the capacity for cooperation and innovation in care. In contexts of healthcare service regulation, mediating actors, with high centrality, play a strategic role in articulating access to care flows.[15] This theoretical lens allows us to interpret the network configurations of teams A and B, highlighting how certain professionals, by occupying central positions, can influence the coordination of care and, simultaneously, how peripheral actors can emerge or be neglected.[15] Thus, the concept of social networks strengthens the analysis of care as a relational phenomenon, and not just a professional one, offering theoretical support for thinking about interventions that promote denser, more horizontal, and integrated networks.[15]

### Communication among professionals for organizing a qualified care process

Although the density percentage of team B is higher than that of team A, it is still considered low, indicating a network of weak connections, according to SNA. Not all team members are in direct contact with each other, suggesting limited cohesion among members and fragmentation of work processes.

This fact was also observed in a previous study, which resulted in poorly coordinated and integrated actions, directly influencing the provision of care for users.[19] The configuration of social networks within FHts directly impacts the effectiveness of the care provided, highlighting the importance of effective communication and strong bonds among team members.[15] Considering the length of employment and experience of team B professionals, a higher density was expected, indicating that such elements do not necessarily guarantee effective group cohesion. Organizational communication is a crucial factor in strengthening intra-team relationships, and the absence of humanized communication can contribute to the disarticulation and fragility of social networks within the team.[15]

Therefore, it is necessary to recognize the need for organization of the work process of teams providing care to older adults with dementia, considering the needs of these users and their families.[20] To that end, territorial registration and recognition of these older adults are important strategies for risk stratification and the creation of a PTS, respecting their autonomy and empowerment.[21] Scheduled activities and attention to spontaneous demand, group activities in the health unit and community spaces or at home, with family support and social services, are important elements in care management.[21]

Implementing effective communication strategies can facilitate the integration of these activities, promoting a more coordinated and patient-centered approach.[15] Furthermore, the need for continuing education activities for PHC professionals working with users with dementia syndromes is highlighted, particularly for CHWs, given their role in mediating with the community, whose work enables the early identification of risks, frailties, and disabilities.[22] The sharing of knowledge guaranteed by interprofessional collaboration and the reflections made possible by continuing education are transformative actions that can enhance quality of life, independence, and autonomy of older adults with dementia.[22]

Degree centrality is defined by the number of direct contacts an actor has with other network members.[7] This measure can be divided into indegree and outdegree, depending on the direction

of information flows.[7] Indegree refers to all the contacts that actors establish with the main actor – an actor who receives numerous connections or links becomes central and prestigious in the context of the group studied.[19] Outdegree, on the other hand, represents the amount of interaction an actor has with other members – the number of links emanating from a node – indicating the network expansiveness and how open it is to new connections.[23]

### A comprehensive and multidisciplinary care network for older adults

Analysis of team A's network centrality showed that, although family members are contacted at all times, the physicians' centrality indicates that professional care practices tend to be prescriptive and protocol-driven. A previous study corroborated these findings, highlighting the predominance of biomedical practice, with actions focused on spontaneous demand and punctual follow-ups.[24]

Still discussing team A, the fact that CHWs takes over a supporting role (with the exception of one of them) and their low centrality shows that this group has "weak ties" within the network. However, accumulated knowledge about problems and challenges of families and community, and the ability to act in an intersectoral logic, can contribute to strengthening their position. But, for this to happen, it would be important to invest in more plural and horizontal working relationships, including collective discussions of cases and processes.[25]

From the perspective of social networks, the role of CHWs as agents who establish links with the community and connect actors within the care network is fundamental to improving the reception and delivery of care in PHC.[15] Strengthening social ties and fostering collaboration among various professionals and the community expands the flow of information, enabling more integrated and effective action, and enhancing comprehensive care.[15] Welcoming, understood as a process that values connection and listening, fosters the co-construction of care practices and strengthens intersectoral networks, which are essential to respond to older adults' complex demands.[15]

Thus, by investing in the power of CHWs as a health promoter, with the support of expanded clinical practice and popular organization, care can be improved through processes that employ low-tech methods.[25]

In team B, the results suggest a more facilitated flow of information, as the work process is not concentrated on a single professional, with nurses and physicians standing out as guides in complex cases. A significant flow of information is also observed with family members, as in team A.

It happens that, when nurses emerge as care managers, they sometimes end up taking over as a problem solver for fragmented tasks, as well as that of a multi-professional, mediating between the user and the service's response. Physicians, on the other hand, are involved in a biomedical and prescriptive logic, with a limited view of activities in the community or home visits, these being seen as duties imposed by management and impossible to perform due to appointment overload.[26]

From the perspective of social networks, the more horizontal organization and facilitated circulation of information observed in team B indicate a greater potential for producing shared and intersectoral care. Social networks act as dynamic structures that facilitate the articulation between actors and the flow of information, favoring the collective construction of care and participatory management, which can be enhanced by more functional team meetings and expanded spaces for dialogue.[15]

From a perspective of expanded and multidisciplinary care, the importance of bringing together the other actors that make up the care network for older adults is highlighted. This can be facilitated by using meeting rooms to discuss the network and present the potential of the micro-area, as well as meetings of management boards in health units, functional team meetings, and more horizontal meetings.[25]

Furthermore, continuing education is emerging as an important need. Despite the aging global population, little has been invested in the training of professionals.[3] Insufficient knowledge affects the understanding of the disease's clinical evolution, in addition to delaying diagnosis and treatment, which are fundamental to alleviating its symptoms and preventing its progression.[27] Finally, the creation of a PTS supports older adult monitoring, contributing to the reduction of the burden on formal or informal caregivers, who are susceptible to illness.[28]

## FINAL CONSIDERATIONS AND IMPLICATIONS FOR PRACTICE

Based on the analyses described, the initial objective of mapping the social care networks of older adults with dementia within the Family Health Strategy and identifying the hubs in the process was achieved. A sociodemographic analysis, in addition to the creation and interpretation of social networks, allowed us to characterize that population aging is a challenge for the Brazilian Health System and particularly for FHts, especially when the process is associated with chronic diseases, such as dementia syndromes. Hence, professionals working in the Family Health Strategy must be able to recognize, treat, and manage care.

However, in practice, it was possible to observe a network that produces fragmented and medicalized care, creating barriers to access to comprehensive care. The relationships among teams appear fragile, centralized in one professional category, and with little mobilization of external actors. Even so, it is understood that there is strength and potential in these networks, provided that the principles of universality, comprehensiveness, and equity are respected and put into practice by healthcare professionals.

A limitation of this study was the small sample size, which included only healthcare professionals. Interviewing users and family members, graphically identifying the bonds they establish within the territory, would complement the study. Another methodological limitation was the small sample size. Although this limitation allowed for a more in-depth analysis of the interactions between actors and bonds in the specific context, it compromises the generalization of results to other PHC

units or realities. Therefore, this study should be understood as exploratory and serve as a basis for future investigations with larger samples and different realities. The results presented here should be interpreted with caution and seen as a basis for further in-depth studies on a larger scale.

Among the study's contributions and recommendations, the need for investment in continuing education for professionals on this topic stands out so that they can interact and connect more horizontally with users and the external network, thus generating a qualified PTS that places users as leading actors of their care.

## ACKNOWLEDGMENTS

None.

## FINANCIAL SUPPORT

This study was financed in part by the *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior* - Brazil (CAPES) - Finance Code 001.

## DATA AVAILABILITY RESEARCH

The underlying content of the research text is contained in the article.

## CONFLICT OF INTEREST

No conflict of interest.

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[a]Extracted from the thesis "Movimentos de redes vivas na produção de cuidado a pessoas idosas com demência e seus cuidadores: a perspectiva de profissionais que atuam na Estratégia Saúde da Família", presented to the Graduate Program in Nursing, Universidade do Estado do Rio de Janeiro, in 2024.