The work of Community Health Workers in light of Communities of Practice Theory

Raquel de Castro Alves Nepomuceno (https://orcid.org/0000-0003-3121-8814) 1
Ivana Cristina de Holanda Cunha Barreto (https://orcid.org/0000-0001-8447-3654) 2
Amanda Cavalcante Frota (https://orcid.org/0000-0003-3944-2263) 2
Kelen Gomes Ribeiro (https://orcid.org/0000-0003-0870-1971) 3
Ana Ecilda Lima Ellery (https://orcid.org/0000-0001-8350-464X) 4
Francisco Antonio Loiola (https://orcid.org/0000-0003-3720-2936) 3
Luiz Odorico Monteiro de Andrade (https://orcid.org/0000-0002-3335-0619) 2

Abstract The work of Community Health Workers (ACS) was analyzed in light of Communities of Practice (CP) theory. This is a qualitative cross-sectional study carried out in four municipalities in Ceará. Six focus groups and six interviews were carried out with 45 Community Health Workers (ACS), observing ethical aspects. The data corpus was analyzed using the content analysis technique. The results show that ACS participation in the ESF is marked by experience in the community, and the main focus is monitoring priority groups. The practices put them before the diverse social and family complexities, generating reflections and building new meanings for themselves and their work process. The ACS CPs engage and share challenges and unique learning from work, characterized by close contact and relationships with the families of the territory, which reveals needs hardly perceived by other ESF professionals. The meaning of being ACS as one who listens, embraces, and perceives the needs of families invisible to services, is evident in the reification processes. The ACS better exercise their role as ESF articulators in the territories the greater the spaces for dialogue between them, the other team members, and management.

Key words Community Health Worker, Family Health Strategy, Practice Communities, Primary Health Care
Introduction

Community Health Workers (ACS) are strategic workers for the main operational model of the Brazilian National Primary Care Policy (PNAB) – the Family Health Strategy (ESF) – and are a relatively new professional category, recognized by Law no. 10.507/2002. This new category has a long history of role or occupation, since the establishment in the Unified Health System (SUS), in the Community Health Workers Program (PACS), which was initially implemented in the North and Northeast Regions in 1991. Given the incipient medical-sanitary coverage in these regions, the workers were gradually trained for various assignments, such as population registration, community diagnosis, identification of risk areas, and promotion of actions to protect the health of children and women as a priority in the face of the vulnerability of these groups.

The PACS was considered a transient strategy for the ESF, aiming to reorient the care model, replacing the traditional, hospital-centered care model geared to healing diseases with a model whose main features focus on the family targeting health promotion. Various social and health problems were added to the responsibilities of the ESF and, in particular, to the ACS, such as monitoring the conditionalities of the Bolsa Família (Family Grant) Program, monitoring people with chronic diseases, the bedridden, preventing the infestation of households by Aedes aegypti, and drug addiction prevention actions.

Studies point out problems related to the work of these professionals, such as lack of limits on assignments; poor working conditions; exposure to violence; lack of articulation with the other members of the multiprofessional team; higher prevalence of depression, among others. The discussion on the practice of these professionals along this trajectory has grown with the political proposals for the organization of the Unified Health System (SUS). In 2017, a review of the PNAB establishing changes in the organization of primary care directly involving the ACS was approved. The possibility of a new type of PHC team was created, composed at least by a doctor, nurse, nursing assistants, or technicians, without the obligation of including the ACS in the team. The 2017 PNAB added new attributions for the ACS, including measuring blood pressure and capillary blood glucose and proceeding with clean dressing techniques, including at home.

As a new category in Brazil and in strengthening and developing the professional identity, thinking about how the ACS are establishing and consolidating work practices is induced. A contradiction is identified between the ACS training work process and what they perform, where the former is assessed as insufficient. Even so, the ACS collectively manage to show good results at work, raising the question about how they learn to carry out professional assignments.

The Communities of Practice (CP) Theory seeks to understand the learning in the daily lives of social groups, how people engage with each other, and the commitment between them through shared interests, how they solve problems, and how this becomes an apprenticeship. Thus, this study sought to analyze the work of Community Health Workers in the light of the CP, focusing on the constituent elements and the participation and negotiation of meanings.

Methods

The component of the research entitled “Field of Professional Practices and Access to Care in the Family Health Strategy (ESF) of Ceará,” which investigated the ESF, based on the field of practices of the reference team and each underlying professional category, relating this set of practices to people’s access to health care, this study is a qualitative and cross-sectional selection about the specific team actor, the Community Health Worker (ACS), included in the field of qualitative research.

Qualitative research begins with assumptions and the use of interpretive/theoretical structures that inform the study of research problems, addressing the meanings that individuals or groups attribute to a social or human problem.

Four municipalities in Ceará were selected as study sites: Fortaleza, Eusébio, Tauá, and Cruz. The municipalities are of different sizes and regions of the State due to the expected variability in professional ESF practice, found in different contexts, that is, municipalities with population size, socioeconomic characteristics, economic development, and different health services network. In the case of the capital, due to the size and the large number of health professionals in the ESF, which would significantly increase the costs and time for the study, the inclusion of the Regional Administration Office II delimited geographically with twelve family health centers was defined. The PHC services of the municipalities included were evaluated by the Program for Improving Access and Quality in Primary Care (PMAQ-AB).
ESF professionals from two complete teams participated in each municipality. They had been working in the territory for at least six months and had several registered families, infrastructure, and adequate supplies for operation. If several teams met this criterion, those with the highest number of ACS were selected. A team from the rural area and another from the urban area were selected in Tauá and Cruz. The focus group (FG) techniques and in-depth interviews were used to build the empirical material. Six FGs were carried out, with 39 participants and six individual interviews, totaling 45 participants in the study. The FGs and the interviews were guided by an open-ended questionnaire and held from October 2017 to January 2018. Two FGs were conducted in Fortaleza, Tauá, and Cruz. In Tauá and Cruz, the FG was carried out in the rural area and another in the urban area. In Eusébio, six interviews were carried out due to the small number of ASC per team, as shown in Chart 1. The interviews were recorded and transcribed in full for a reliable record of the statements.

The data corpus was interpreted using the dimensions that make up a Practice Community (CP) as a theoretical and methodological framework. The CP Theory is epistemologically based on Wenger’s Social Learning Theory but transcends it19. CPs’ primary focus is on learning as a result of social participation19. As people participate, they get involved and mobilize, carrying out or elaborating projects, exchanging impressions, intentions, practices, and knowledge. They learn by adapting to each other and the context. Together, people are motivated to learn and collaborate, negotiate meanings, produce practices that evolve, and establish social relationships21.

The CP concept’s analytical power lies precisely in the integration of four elements: practice, meaning, community, and identity. Practice is a process by which one can experience the world and the subject’s involvement with it as significant. Meaning involves the interaction of two constituent processes, called participation and reification, fundamental for the human experience of meaning and, thus, practical nature. The CP describes three fundamental dimensions to associate practice and community: mutual engagement, a joint project, and a shared repertoire. Identity issues are an integral aspect of the Social Learning Theory and, therefore, are inseparable from practice, community, and meaning19.

We used the content analysis method22 for processing data from FGs and interviews, following the following operational steps: sorting, classification, and final analysis of the information23. The approximation with the explicit and implicit meanings in these materials guided the definition of the meaning core and the two named categories: ACS participation in the ESF and the process of reifications established by the practices. In this way, the thematic categories that were analyzed in-depth in the discussion emerged from this phase. Ethical aspects were respected, observing the norms of Resolution Nº466/12 of the National Health Council (CNS)24. The ethics committee authorized the research.

**Results and Discussion**

The analysis and discussion of this study were based on the social participation of the ACS in the ESF, analyzing the meanings they extract from the practice and the reification processes developed. The term participation describes the social experience of living globally regarding participation in social communities. It is a complex process that combines doing, speaking, thinking, feeling, and belonging. It involves the whole person, including bodies, minds, emotions, and social relationships. It can involve all types of relationships, both conflicting and harmonious, intimate and political, and competitive and cooperative19.

Social participation and negotiation of meanings produced are represented schematically in Figure 1.

**Agreement on a Common Action Project: normative health needs versus needs of communities invisible to services**

The participation of ACS in the ESF and the construction of a joint project of action are marked by the experience with/in the community in the daily practices, mainly through home visits. The work carried out in the territory comprises various activities, such as monitoring the health situation, providing guidance on prevention, collecting health information, delivering tests and specialized visits and identifying new demands, and supporting families to obtain access to health services:

*Our daily activity is to make home visits from house to house. We make ten visits a day and go to the homes of pregnant women, older adults, children up to five years of age. We measure weight, verify vaccination status, and provide information and guidance. We also go to the home of hypertensive and diabetic patients (Fortaleza).*
In home visits, our conversations with the family always address preventive tests and family planning, men going to the doctor to do their tests, dentists, and there is always some conversation, some demand concerning the unit’s professionals, not to mention the demands of the CAPS and tobacco use (Tauá).

The data pointed out that the investigated ACS had a joint project to respond to the health needs of the community in which they worked. In home visits, the main focus of activity was the monitoring priority groups, which are the Ministry of Health’s programmatic actions: children under two years of age, pregnant women, puerperae, hypertensive, diabetic, and bedridden or domiciled. However, we observed that the reality of the ACS daily lives places them in the face of the most diverse demands, with complex situa-

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**Chart 1.** Details of the municipalities, actors participating in the research, and techniques for producing information. Ceará, Brazil, 2018.

<table>
<thead>
<tr>
<th>Municipalities</th>
<th>Size of municipality</th>
<th>Location</th>
<th># Focus Groups</th>
<th># Interviews</th>
<th># ACS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fortaleza - Regional Administration II</td>
<td>Large</td>
<td>Capital</td>
<td>2</td>
<td>-</td>
<td>12</td>
</tr>
<tr>
<td>Tauá</td>
<td>Medium</td>
<td>Sertões dos Inhamuns</td>
<td>2</td>
<td>-</td>
<td>14</td>
</tr>
<tr>
<td>Cruz</td>
<td>Small</td>
<td>West Coast</td>
<td>2</td>
<td>-</td>
<td>13</td>
</tr>
<tr>
<td>Eusébio</td>
<td>Medium</td>
<td>Metropolitan Region</td>
<td>-</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>4 municipalities</td>
<td>-</td>
<td>6</td>
<td>6</td>
<td>45</td>
</tr>
</tbody>
</table>

Source: Elaborated by the authors.

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**Figure 1.** Social participation and negotiation of meanings produced by the ACS. Ceará, Brazil, 2018.

Source: Adapted from Wenger19.
tions involving social and family issues permeated by search not institutionally attended and almost always invisible to health services:

We are supposed to cover everything: listening to everything. So, it is not just monitoring a hypertensive, diabetic, or pregnant woman. Our role is doing everything and listening to everything (Eusébio).

I have this user that I visit at her home... she is even doing follow-up at CAPS. She says that she loses sleep, that her husband sleeps apart from her, and that she keeps brooding all night. She said she already wanted to kill herself. Then, I talk to her and say, it's not worth it for you to do this. You have your children; you have your life. It's not worth it for you to do this. Do your treatment correctly, go for a walk, go for a walk, go out to talk to your friends (Cruz).

The negotiation of a joint project results from a collective negotiation process, reflecting the complexity of mutual engagement defined by the participants in building it. Practice does not exist in abstraction. It exists because people are involved in actions whose meanings negotiate with one another.

In the study, we observed that the negotiation of the joint project was not only in the stated objectives but also in the specified attributions of these professionals in the PNAB, anchoring in the need to respond to the health demands of the populations, produced by social determinants of health. An essential factor in this covenant of a joint action project is the vulnerabilities of families, those that are part of the profile of programmatic actions, and those that are not. Some ACS struggled to describe a routine due to the unpredictable demands that arise in their daily lives:

A user is raising a niece aged 18 who is a single mother. Her daughter went to São Paulo and left a two-year-old granddaughter, (...), who has a teenage daughter who is giving her a headache. She is together with a man who does not sleep with her, lives drunk, and is always having a fight. (...) (Cruz).

We cannot describe our routine. Some days you can make twenty visits, and some other days only three. So, I can't say we have a routine. We don't because there is no way. I don't know what will happen tomorrow in my area (Eusébio).

The need for greater acceptance of the demands identified by the ACS was perceived, both in the relational sense and for resolving and considering citizenship. Besides the ACS assimilations as workers, users should understand the principles and guidelines of the Unified Health System, enabling them to actively seek out rights and duties, from an understanding of health and a broad and systemic perspective.

**Mutual engagement of the ACS in the ESF team practices**

The common interest in responding to the extended health needs of families requires the mutual engagement of ACS and those with the other ESF team members, and the negotiation of meanings results from this interaction. Mutual engagement exists because people are involved in actions, the meanings of which they mutually agree. In this sense, practice does not reside in books or tools. Nor does it reside in a structure that precedes it, although it does not begin in a historical vacuum. The practice resides in a community of people and mutual engagement relationships, by which they can do what they do.

Thus, the ACS build a process of mutual responsibility in the community in which they operate, seeking to link the assisted population to the ESF team as a whole to enable families, especially the most vulnerable, to access social policies and health services. By doing so, they carry out actions together and create harmonious and conflicting relationships.

One of the typical practices in CP, repeatedly mentioned in the focus groups, was the inclusion of new ACS in the ESF, based on the collaboration of older ACS, who are teaching, in the context of work, the profession's actions to freshmen. Working collaboratively to serve an area that is temporarily without ACS, mobilizing the community for actions of environmental sanitation, garbage collection, and elimination of outbreaks of the *Aedes aegypti* mosquito, for example, is an element of the mutual engagement of the ACS:

Sometimes, I ask the girls (the ACS colleagues) what it is like, what is happening (...). In my area, I don't have tuberculosis or leprosy. We search in the books and read something. If we find any information on someone who already has a problem with that condition, it already specifies that condition is treated. (...) So, we help each other in this way (Tauá).

We have an uncovered area in our team, and, as she always said, we get together to do the task force. We go there and identify the needs... We have to do the task force, and we will always cover that area (Fortaleza).

Thus, when a group shares specific interests, routines, projects, and work processes with each other, those who arrive know that these elements...
exist, but need time to take ownership. Gradually, newcomers to the community learn about the routines, protocols, elements reified by the CP with other members and contribute to the collective process with knowledge and experience.

A shared practice, therefore, connects participants in diverse and complex ways. The resulting relationships reflect the total complexity of doing things collectively. In real life, mutual relationships between participants are complex mixtures of power and dependence, pleasure and pain, success and failure, facility and flexibility, authority and collegiality, resistance and conformity, anger and tenderness, amusement and annoyance, trust and suspicion, and friendship and hate. Practice communities have it all.

Within the emerging multiplicity in communities of practice, ACS experience the conflict of meeting the requirements of management, such as the collection of detailed information about families, to the detriment of the demands of illness that often arise from them. ACS understand that community demands are more urgent and priority. A situation of exacerbated demand for new information occurred in Tauá, in which completing forms with the model for calculating people’s risk for diabetes was incorporated. It is not that this action is unnecessary, but we observed that this new assignment had to be discussed with the ACS and balanced with other activities to avoid overload:

We are immensely pressured to work. When Findrisk came for us to do, nobody asked if we could or if we had time. They sent Findrisk and said that you have until December 4th to deliver the entire population over twenty weighed and measured (Tauá).

Management must get closer to the ACS to visualize the complexities that they address in practice, supporting the resolution of problems that involve multiple dimensions and are often approached in isolation by the ACS. According to the data corpus in this study, the ACS exercised their role of articulating the ESF in the territories better, the more the team and the municipal health management created spaces for dialoguing with them, pointing to participatory management. This shared management perspective can create shared power spaces, and all workers involved in the work process can participate, learn, decide, and have a more significant commitment to the process and results, enabling more effective ways of addressing competitiveness, complexity, and teamwork. This innovative perspective regarding the vertical logic found in teams and health services is still a challenge in the SUS, and this was evidenced in the findings of this study.

The results obtained in this study refer to the possibility of establishing two border Practice Communities in the context of the ESF: that of the ACS and that including all the team professionals. The ACS CP engages and shares unique challenges and learning from work, characterized by the closer contact and relationship with families in the territory, which reveal needs less perceived or even invisible to other ESF professionals. However, these needs cannot be answered by the ACS CP alone. The potential CP of the ESF team and the municipal managers should participate effectively in the process. Otherwise, an undue transfer of responsibilities from the public authorities in general to a specific group of public workers occurs.

ESF team meetings are opportunities to generate new negotiations and new meanings, institutionalized spaces in the work process that allow reflecting on daily practices, favoring engagement and, consequently, improving practice and responses to people’s health needs:

We participate in the meetings within the unit. We bring our problems, the main issue in the area. Here, together with the team, we develop the actions and measures to resolve or, at least, alleviate the problem (Tauá).

We have our meeting, which is to schedule bedridden patients to perform our monthly evaluation with the nurse: (…) to know if we are visiting pregnant women, how the children’s vaccines are, if there are any children with a delayed vaccine, what we can do, or if we have any puerperal visit with the nurse. So, all of this is done in our monthly meeting (Eusébio).

The territorial challenges and those of each particularity of ESF users mobilize the ACS learning process. The meaning is configured through the felt need to develop knowledge and skills to respond to households’ demands. If territorial demands brought about by the ACS are not listened to, and the collective planning of actions does not occur, the ACS disintegrate and distance themselves from the ESF team, which works mainly within the PHC Unit, weakening the potential CP of the Family Health team:

We can reconcile with this female doctor. We call her and say: I am here on a visit. There is a sick child here at the house. What do I do? So, we are at liberty to tell her. She says, “sent it over so that I will have a look and refer to a doctor...” It makes life
easier for both the person and us (Eusébio).

The research data points to the strengthening of the potential CP based on the effective construction of the bond between team members and its positive consequences in the ESF’s work processes.

**Reification processes created through the ACS practices and sharing the work repertoires produced**

In conjunction with participation, reification is very useful for describing involvement with the world as a producer of meanings. The concept of reification refers to the process of shaping the experience, producing objects that materialize that experience into “thingness”. Any community of practice produces abstractions, tools, stories, terms, and concepts that reify something of this practice, consolidating it. All this knowledge and accumulation of work experiences, practices, and knowledge are shared in the CP. Thus, focus points are created around which the negotiation of meaning is organized and shared19.

The shared repertoire comprises a set of resources (ways of doing things, routines, language, and tools) socialized by a community to facilitate work in common, creating engagement in practice19. When composing the shared repertoire of these professionals in the practices, the ACS acts as an educator, carrying out educational actions in the UBS and other social spaces of the community, also acting as a mobilizer of community participation in health groups organized by the ESF or NASF teams:

**Our part is information. Inform the community how they can avoid accumulating water, constantly cleaning. It is an ant job (Eusébio).**

We are also always participating, contributing, and through our daily experience, we also participate in groups with some guidance, with some talk about our experience (Tauá).

With the participation in a CP and the joint search for the development of a common project, repertoires (routines and protocols) that express the meaning of the negotiation between the CP peers are created. The tools for developing practices range from those justified by the government, such as forms, uniforms, identification badges, and electronic medical records, such as technological innovations incorporated at the initiative of ESF professionals (mobile devices for surfing the internet and for telephony, communication applications):

Fastmedic (an electronic medical record), the e-SUS form, emerged. So, many people have stopped using some material that we used before. Most health workers use A or B forms that include hypertensive, diabetic, and pregnant women (Fortaleza).

A badge may not mean anything to other people, but for us, who are within a community, it means a lot. It avoids the police coming here and arresting us as well... because we should be working with an identification (Fortaleza).

Moreover, the use of dialogue and listening permeate the practice of these workers, and all these tools are significant for this professional’s practice:

**You are inside people’s homes, and you want to gain their trust, and some people treat you as part of the family. They let off steam with you, tell the problems, things, and secrets of that family. They tell things that sometimes the husband is in trouble and the wife doesn’t even know (Eusébio).**

The dialogues operated in the practice of these professionals in the community establish meanings for their lives, interposed by conditions and determinants for survival. In conversations, people express feelings and provide more meaningful experiences for health10. With gestures, listening, and horizontal conversations, the population mainly incorporates therapeutic guidelines and recommendations for prevention and health promotion. A potentiality emerges from the community bond and becomes a significant attribute for the relationships experienced31.

Acting based on solidary values expands the ACS ability to perceive health needs invisible to services and provide care that transcends the offer of programmatic actions, investing in what is significant to them. This finding was also verified in another study32. The experience in the community as a permanent actor and the function of being the “link” of the health team with the community seems to be very much incorporated into the identity of this group of professionals and may be the result of the negotiation of meanings specific to the CP.

As for the limits of the study, the preferred design for studying the establishment of CP would be ethnography. However, the qualitative research carried out was comprehensive and revealed findings of dimensions in the ACS work, repeated in the focus groups and the interviews with ACS in the four municipalities, pointing to robust findings.
Final Considerations

CP’s theoretical and methodological framework proved to be interesting to analyze the work of these professionals in cognitive and subjective aspects and explicit and tacit reflections. We observed that the greater the involvement of these professionals in the process of agreeing on a joint project of action and in the negotiation of meanings (engagement), the more the building new meanings and new forms of participation in practice was enhanced, understood as an action in a historical and social context and a field of identity construction.

Each participation or reification act reflected the mutual establishment between the ACS individually and collectively. Practices, languages, artifacts, and worldviews reflect social relationships. They became involved with each other and the other ESF team participants when the latter included interaction with the ACS in their work. Practices imply a way of being ACS, shaping in this trajectory an identity in permanent construction, which is something that they constantly negotiate and address as individuals and professionals.

This work points to the importance of the ACS CP in the ESF as a whole, facilitating the assisted population’s access to PHC, especially the most vulnerable groups, such as older adults, socially vulnerable people, the bedridden, children, pregnant women, hypertensive, and diabetic. Besides these normative functions, this study contributes to explain other roles and meanings of being an ACS in light of the CP Theory: service articulator, social educator, and community participation mobilizer.

It shows ACS active and effective participation in the ESF’s work processes following their entry in the territory and empathic approach with the user, bringing capillarity to actions and strengthening the ESF and the Unified Health System.
Collaborations

RCA Nepomuceno participated in the research, data analysis, paper writing, and final review. ICHC Barreto designed the study, participated in data analysis, paper writing, and final review. AC Frota, KG Ribeiro, AEL Ellery, FA Loiola, and LOM Andrade contributed to paper writing and the final review.

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