Scientific and popular knowledge in Family Health Strategies from a hermeneutic-dialectic perspective

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ABSTRACT

Aim: to analyze the scientific and popular knowledge of nurses and community health agents (ACS – from the Portuguese Agentes Comunitários de Saúde) of the Family Health units of the State of Rio de Janeiro.

Method: study from a hermeneutic-dialectic perspective, where 16 nurses were interviewed and 17 ACS of Health Family Units participated in focal groups from October/2014 to March/2015. Results and discussion: professionals use popular and scientific knowledge in health care, although not always in an articulated way to their professional practice. Some of them do not recognize popular knowledge as legitimate knowledge with power to dialogue and transform their professional practices in dialogue with scientific knowledge.

Conclusion: the articulation among the forms of knowledge is presented as a powerful path in the perspective of development of health practices more complete and efficient among nurses and ACS in Family Health Strategy.

Descriptors: Family Health Strategy; Nurses; Community Health Workers.
INTRODUCTION

This article presents results of research developed by research group Popular Education, Health and Nursing, of the Graduate Program in Nursing of the State University of Rio de Janeiro (UERJ), being supported by the Incentive Program for Scientific, Technical and Artistic Production (PROCIÊNCIA/UERJ).

For the philosophical currents of modern science, science is the an objective and true way of knowing, endowed with a special method established by the scientific community and able to guarantee the acquisition of a universal, necessary and innovative knowledge. It would be devoid of the influence of factors extrinsic to its practice and would therefore be neutral and impartial\(^\text{(1)}\). However, the authors of this article agree with the criticism around this thought, since all the scientific knowledge is socially constructed and is not restricted to the group of researchers \(^\text{(2)}\).

In this sense, the importance of the relation between common sense and science in the construction of knowledge is emphasized. Common sense, as a philosophical concept that emerges in the eighteenth century, is intended to be natural and reasonable, not superficial and illusory\(^\text{(2)}\). Considering that popular knowledge is built on common sense, popular knowledge is understood as an important part of the construction of science.

Popular knowledge includes all shapes of informal knowledge. As Freire\(^\text{(3)}\) teaches, teaching requires respect for the various forms of knowledge and experience. Therefore, this includes manifestations of popular culture, medicinal teas, handcrafts, witchcraft, lullabies, and many others expressions of practical wisdom. These do not require formalized space and time, are transmitted generation to generation through spoken language, gestures and attitudes, and are also transformed as they undergo external and internal influences as an integrant part of popular cultures.

The research starts from the identification of the need to develop health practices that recognize experiences and popular knowledge, the shared construction of knowledge, and that de-emphasize the hierarchy between scientific and non-scientific knowledge\(^\text{(4,5)}\).

However, studies directed to the practices of health professionals in primary health care (APS – from the Portuguese Atenção Primária à Saúde) show little relationship between these practices and scientific and popular knowledge, it’s meaning, how they are expressed and the actions that they produce\(^\text{(6,7)}\).

This work is based on the definition developed in a previous study\(^\text{(8)}\), which considers practices of health professionals as the various ways of doing healthcare on a daily basis in their professional lives. These are seen as a set of actions based on diversified knowledge, with different objectives. In this sense, it is necessary to study the knowledge and practices, both scientific and popular, which involve the work of APS health professionals, to build actions that consider the knowledge and contexts into which they fit.

This article presents a collection of the popular and scientific knowledge of nurses and community health agents (ACS). The project predicted the insertion of nurses, doctors, odontologist and community health agents as subjects of research, however only nurses and community health agents were kept, due to the unavailability of funding, which made it impossible for the researchers to travel frequently to the municipalities selected in this study. Thus, the objective was to analyze the scientific and popular knowledge of nurses and ACSs in the services linked to APS in the State of Rio de Janeiro.
METHOD

The theoretical and methodological perspective of the research was based on the presuppositions of hermeneutic-dialectic. Hermeneutics is concerned with the art of comprehending texts\(^{(9)}\) and is based on comprehension, given that "comprehend" means understand: understanding each other. Humans, for the most part, understand each other or make an inner and relational movement to agree\(^{(10)}\).

While the word *comprehension* defines the hermeneutic approach, in dialectics the striking word is *contradiction*. “While hermeneutics seeks the basis of the consensus and comprehension in tradition and language, the dialectical method introduces into the comprehension of reality the principle of conflict and contradiction as something permanent and explained in the transformation”\(^{(9)}\).

The possibility of articulating hermeneutics with the dialectic indicates a reflection that is based on praxis and states that the articulation between the two approaches is fruitful in the conduct of the process that, at the same time, is both understanding and critical of the analysis of social reality. Thus, we affirm the approximation of both approaches, allowing us to conclude that the hermeneutic-dialectic "seeks to apprehend the empirical social practice of individuals in society in their contradictory movement”\(^{(9)}\).

The hermeneutic-dialectic was used as a method, and semi-structured interviews with 16 nurses and focus groups with 17 ACS were used for seizing the data. It was decided to articulate these data collection techniques, since it is understood that they are methodological strategies that facilitate the apprehension of the methods of concrete interpersonal relations between individuals and their trajectories, capturing events and practices. Data collection was carried out from October 2014 to March 2015, in Family Health Strategy (ESF – from the Portuguese Estratégia Saúde da Família) units of Porto Real (Middle Paraiba Region), Angra do Reis (Green Coast Region), Maricá (Baixada Costal) And Porciúncula (Northwest Fluminense), cities of the state of Rio de Janeiro.

A municipality was selected from each region of Rio de Janeiro, according to the criterion of greater coverage of the ESF in the region. In necessary cases, the tiebreaker was done by lottery among the municipalities. In order to carry out this selection, the data concerning the coverage of the ESF of each municipality in the period of December of 2013 was researched.

It was verified that the municipalities mentioned below had 100% coverage of the ESF: Angra dos Reis in the Region of Green Coast; Pirai, Pinheiral, Rio Claro, Porto Real and Rio das Flores, in the Middle Paraiba Region; Mendes, Engenheiro Paulo de Frontin, Miguel Pereira, Vassouras, Paty do Alferes, Paraíba do Sul, Comendador Levy Gasparian and Três Rios, in the Center-South Fluminense Region; Varre-Sai, Porciúncula, Natividade, Laje do Muriá, São José de Uba and Aperibé, in the Northwest Fluminense; Cardoso Moreira and Quissamã in the Northern Fluminense Region; Casimiro de Abreu, Silva Jardim, Iguaba Grande and Rio Bonito, in the Coastal Baixada; Cantagalo, Sumidouro, Santa Maria Madalena, São Sebastião do Alto, Trajano de Morais and São José do Vale do Rio Preto, in the Serrana region. In the Metropolitan Region, the highest coverage of the ESF registered was 86.8%, in the municipality of Magé.

After a draw in regions where there was more than one municipality with 100% coverage, one municipality was selected in each region: Angra do Reis (Green Coast), Porto Real (Middle Paraiba), Três Rios (Center-South Fluminense), Porciúncula (Northwest Fluminense).
nense), Quissamã (Northern Fluminense), Rio Bonito (Coastal Baixada), São José do Vale do Rio Preto (Region Serrana) and Magé (Metropolitan Region). For diverse reasons, only the municipalities of Angra dos Reis, Porto Real and Porciúncula authorized the data collection within the deadline established in the research schedule. The municipality of Maricá, which has a 43.4% coverage of ESF, was included as representative of the metropolitan region due to the poor availability of the selected municipality and the interest shown by the local health team.

The analysis process of interview and focal groups was guided by comprehension logic and hermeneutic-dialectic analysis(9). In this sense, the following data analysis steps were used:

- **1st step - Data organization**: through the process of hearing and transcription it was possible to perceive some prominent ideas of the nurses’ and ACS speeches. Then, the first readings were started, through which it was possible to highlight and select the speeches of the subjects who expressed the health practices in the city. The speeches were organized in spreadsheets using Excel 2013. To guarantee the anonymity of the participants, we identified the interviews with the letter E for the nurses and the initial ACS for each focal group with community health agents, followed by sequential numbering;

- **2nd step – Interpretation of the selected expressions and identification of the themes**: for each subject’s speech, a sense and meaning was related that later were unfolded in thematic lines. In this relation of a thematic sense to the speeches, the whole context of the interview and of the focus group was respected, i.e., considering the questions of the interviewer in line with the subjects’ answers;

- **3rd step - Categories**: through thematic lines, the analytical categories were formed.

The project was submitted to the Research Ethics Committee of the State University of Rio de Janeiro, as required by Resolution 466/2012(11), which approves guidelines and regulatory standards for research involving human beings, and was approved by the opinion 001/2014.

**RESULTS**

The results of this research allowed the organization of three categories: *Health practices performed by nurses and ACS of the ESF; the scientific and popular knowledge present in the health practices of nurses and ACS of the ESF; and dialogues and processes of shared construction of knowledge in health practices*. This article will address the aspects related to the second category: the scientific and popular knowledge present in the health practices of nurses and ACS of the ESF.

It was verified that the nurses of the ESF and the ACS use scientific and popular knowledge in the health care of the users. In general, the scientific knowledge is directly linked to the academic education of the professional, and the popular knowledge to inheritance and socio-cultural contexts. There is recognition of the importance of popular knowledge, especially that which refers to the use of herbs and teas, and its articulation with scientific knowledge.

We have the knowledge that comes from academic knowledge, that we learned at the university, that we search still in the literature. (E5)

I use both scientific and popular knowledge because many times you have to use the popular knowledge because you are dealing with the user. (E10)
I make lots of food groups [...] I teach how to plant [vegetables and herbs], to make tea. There is a lot of tea that I know. (E15)

At times, it can be noted the comprehension of popular knowledge does not refer only to the users’ knowledge, but also to the experiences of the nurses and ACS in their socio-familial and cultural contexts.

[...] Funny, we take a course, and our grandmother teaches, for example, white rose tea for candidiasis. I had never taken it, but [...] one day, when we got a bag of white rose tea in the ESF, I said: ‘I’m going to drink this!’ And since then, [...] at the women’s health consultation, I always pass this on to the girls, which really works. (E1)

This knowledge I think it’s really of the day-to-day [...]. (ACS1)

On the other hand, some health professionals affirm that they do not use popular knowledge in their professional practice, not mentioning it and/or recognizing it and the synthesis present between both forms of knowledge in everyday life.

Look ... use [popular knowledge], well, I do not use! I do not suggest tea, phytotherapy, these things, because I have no knowledge in that area. (E3)

I don’t use popular knowledge, but I respect the popular knowledge of others. (E4)

I use technical and scientific knowledge in my practice. So, we have the knowledge that comes from academic knowledge, right? That we studied in college, which we are still searching for in literature. (E5)

This position seems to be related to the already cited correlation between popular knowledge and the use of herbs and teas. Such association limits the understanding that these are types of knowledge linked to non-formal learning and present in all social groups.

We identified reports of nurses and ACS that recognize popular knowledge in the users and seek to articulate this knowledge with scientific knowledge, with a view to respecting the knowledge of the population and maintaining the necessary link for dialogue. However, it is perceived that scientific knowledge is seen by some professionals as the only recognized knowledge, which hinders the acceptance of popular practices, as well as the possibility of building shared practices from both kinds of knowledge, since the popular is disregarded as a legitimate form of knowledge.

We try to add. I will never say that it is wrong she takes that little tea, but we try to explain that it is important to also use the medication. (E8)

There are things that you can guide; but there are very absurd things that we have to talk about. Like the pregnant woman that comes to you and says that she will put tobacco leaves in the navel of the child. There is no way to say ‘use it’, but also [lets talk] in a way that is softer, for people not to feel diminished, because you startle them and then they do not come back. (ACS2)
When asked about how they articulate scientific and popular knowledge, some nurses refer to adapting the scientific language to the popular one. Others claim to have an association of both forms of knowledge.

I share with them in their language, right? It’s no use going to them and saying, “Look, you have a cephalgia”; He will think he has a serious health problem and will die in two days. So I talk in simpler language with them, so they can understand. (E1)

[...]we also have to give value to what people know and bring with them. After all, people are not an empty bag, everyone has something inside them, some knowledge that we have to value as much as we know it is not so right. (E11)

It is the very knowledge that we know that comes from patients. Sometimes they speak a few words, they use some sayings that we do not even know, but over time we adjust them to our life. (E3)

Nurses have popular knowledge from common sense and from their own experience, which in many cases is mixed with the popular knowledge of the community.

The scientific knowledge of nurses is acquired through permanent education, specializations, participation in congresses and other scientific activities, access to legislation and protocols. Among the ACS, it was observed that they acquire knowledge mainly through the nurse and through the users themselves, through training courses, with the multiprofessional team and with the professional experience.

I use all the knowledge that I learned in a university, as a post-graduate [...]. (E4)

Sometimes we think we know, and they [users] say something we did not even know and we learn from them here. [...] We learn from experience and from their difficulties [...]. (ACS3)

I think this knowledge comes a great deal from the talk that we have with our nurses, from the training courses we had [...] we have had several courses so that we have acquired a little more practice. (ACS1)

Regarding the areas of knowledge explored in the practices, it was evidenced that these professionals perceive the interdisciplinarity present in the areas of knowledge and mention the importance of articulations with other professionals, and between sectors such as education, administration, environment, psychology, nutrition and social work.

We seek to use intersectorality. The issues are not always only in the health area, sometimes there is involvement with other areas: education - let me think of another - education is because it is more present with us; sports and leisure, we deal directly with sports and leisure; the managerial part, management, it’s everything involved. (E10)

Our help is the nurses; we go out on the street, see something we’re not used to dealing with or that we’ve never seen, and call the nurse to ask. (ACS3)
With the psychologist, I sit there and talk to her [...]. (ACS1)

ACSs have difficulties in identifying and defining the users' popular knowledge, but it is possible to see that, in reporting their practices, they articulate popular and scientific knowledge in community health care.

Sometimes the person comes and says: I will not take this medicine because I'm taking a tea [...] and it's doing me good. So we say: if it's doing you good you must associate this with the medicine, do not stop taking the medicine. So the person keeps taking the medicine. (ACS1)

We respect people's beliefs. This has happened to me, I went to do this interview on the card [...] and there is a part that asks you if you use medicinal plants, the person said: I use cotton because I have a certain inflammation. I said that you can use cotton, which I believe will not hurt you [...] but do not stop going for an exam, to see what's happening [...] it may be more serious and using a home made tea there will not have the necessary effect. (ACS2)

DISCUSSION

It was verified that the nurses and the ACS use popular and scientific knowledge in the health care of the users. However, the articulation between knowledge, its incorporation and dialogue with professional practices still presents a great challenge insofar as the understanding of the complementarity between these types of knowledge is very little incorporated into the processes of formation and permanent education in health.

The recognition of popular knowledge by the researched professionals is mainly associated with the use of herbal medicines, added to the biomedical knowledge in therapeutic indications, not being understood also as a knowledge that comes from the practice. In this sense, it is necessary to question the use of this kind of popular knowledge as a specific way to legitimize the action of the health professional with the population, and not as an appreciation of socially produced knowledge in the territories. There is a need, therefore, to overcome this vision and establish a movement in health that understands that scientific knowledge, technical and scientific objects that are favored for building and that the scientific community is brokered by are as relevant as any other group, object, or knowledge\(^\text{(12)}\). In this sense, the need for sharing between popular and scientific knowledge to establish dialogue and proximity between users and health professionals is perceived as necessary to enable more effective health practices.

Greater incorporation and recognition of popular knowledge by ACS has been noticed, as they cite the users as holders of knowledge. Possibly, the fact that ACS are residents of the area in which they work and are part of the same social group as the users favors the recognition of popular knowledge, since they coexist and share experiences in the same local contexts.

In their historical trajectory, the ACS have marked the recognition and legitimacy of their work by using proximity to the inhabitants of their territory, and by a character of reciprocity in the relations of sociability marked by dialogue and knowledge of the dynamics of the lifestyle of their own community. With this, they incorporate the essence of their culture
with the popular knowledge of the community. Later, as professionals, they begin to mediate popular knowledge with scientific knowledge in the health practices developed in the ESF.

In the construction of the ACS activity profile, it is necessary to recognize that the ‘nature’ attributed to this work is directly related to relational skills and everyday wisdom and to the sharing of the ‘cultural codes’ of the local context of their dwelling, manifesting their ‘central’ character for mediation, understood from different political and ideological perspectives(13).

The same does not occur with the nurses who refer only to resources that use scientific knowledge when citing ways of acquiring knowledge. The relational nature expressed in care practices performed by nurses is little emphasized as an important part of their professional knowledge. The tendency of health professionals is to recognize only traditional scientific knowledge as legitimate, i.e., that which is confirmed by research and scientific literature, which leads to the disregarding of other forms of knowledge in health practices. In this way, the health professional offers his knowledge because he considers that of the population to be insufficient. The implication is that scientific knowledge is the only one with a magical ability to end the ignorance of humanity, removing it from the darkness of ignorance, elevating it to the condition of progress(14). However, there is evidence that nurses also use knowledge derived from their own values, habits, life experiences and culture in health practices, which points to different perspectives among professionals(15).

Although the professionals refer to the use of scientific and popular knowledge in health practices, they have difficulty articulating these kinds of knowledge, and when they mention the existence of the articulation, they cannot explain how it is performed. This indicates a predominance of scientific knowledge over the popular, since modern science has suppressed the emergence of the diverse knowledge of the dominant model, which has caused the destructive suppression of some models of local knowledge and in the devaluation and hierarchy of so many others(2).

Nurses consider the adequacy of scientific language to be popular as a way of articulating these kinds of knowledge. Science adopts a taxonomy that is often unpronounceable by common sense, making it difficult for lay people to comprehend this type of language and, consequently, making communication between the two types of knowledge difficult. It is recommended to search for strategies, if necessary with the incorporation of new skills and abilities, so that the communication becomes effective, that is, the information is understood by the user(16). However, the articulation between forms of knowledge is not only a question of language, but of dialogue and respect for the experiences and knowledge present. In this context, the ACS is reaffirmed as an important communication link between the health team and the community, translating and serving as a bridge to the articulation between popular and scientific knowledge.

The adequacy of health work is indispensable in order to respond to the expanded concept of health and the respective needs of users based on practices integrated between different forms of knowledge and professions. The nurses, in their teamwork, must converge their care with the integrality of health care, composing multiprofessional and intersectoral actions. In addition to the composition of different forms of knowledge, “interdisciplinarity is a matter of attitude of openness, sharing and dialogue with difference in favor of totality”. In this sense, the need for conver-
gence’ and ‘sharing’ of actions is pointed out, seeking to overcome the simple agglutination of ideas and isolated proposals of specialized knowledge(17).

In the daily practice of nurses, the realization of interdisciplinarity can be perceived from the accumulation of different knowledge acquired in the processes of formation. However, with the reproduction and accumulation of specialized knowledge, it is more difficult to integrate in the perspective of sharing among professionals in the totality of care.

On the other hand, the work of the ACS and the knowledge used in their practice reproduces, in part, the scientific knowledge acquired mainly by nursing professionals. Its attributions to the production of knowledge about the users in their biological and socio-cultural aspect have the purpose of building practices oriented not only to a technical and biomedical vision, but also to an intersectoral perspective, contemplating the other aspects that compose the health-sickness-care process. In this way, the ACS add value of representation of the population in the organization of work in the ESF, and through its historical experience of popular practices and cultural values, is able to offer knowledge of the relations established in the territory where they work, conforming a set of knowledge and accumulated practices, to meet the strategies of the work advocated by health policies(13).

CONCLUSION

Modern scientific knowledge has brought enormous benefits in terms of innovations and technological advantages with regard to health practices, but at the same time has brought about the devaluation of many other forms of knowledge, such as the popular. Overcoming this fragmentary paradigm is the challenge of professionals in carrying out their practices. Although not always explicitly identified, both scientific and popular knowledge timidly mainstream the health practices of nurses and ACS in the ESF. It seems fundamental to identify ways that favor the articulation between these forms if knowledge, updating the traditional view that the user must abide by the scientific knowledge transmitted by the professionals, in the perspective of constructing more effective and integral care practices.

The professionals carry out their practices, primarily, based on the scientific knowledge that has guided all their professional training. The marginal or secondary place of popular knowledge was evidenced in different aspects of this research. However, there are indications of a change in this conception, observed especially among the ACS’s.

Finally, based on the evidence of the findings, we indicate the possibility of practices anchored in dialogue and in the complementarity between popular and scientific knowledge. In this movement we are not only elucubrating an unthinkable and impossible dream. On the contrary, we believe in higher resolutive practices in the ESF, the locus of this study, when supported by complementarity and mutual respect between forms of knowledge. In this sense, this study contributes to the reflection on the importance for nursing of highlighting both the scientific and popular character of the health practices performed at the ESF. One of the weaknesses of this study is identified as the non-inclusion of all the professionals who make up the multiprofessional team of the ESF in the identification of their scientific and popular knowledge.

The hermeneutic-dialectic perspective made it possible, in this research, to bridge the gap between researchers and researchers and,
through the discourse, the comprehension of the otherness of the practices performed.

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