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# Learning of community health agent to identify and register disabled people

Aprendizagem do agente comunitário de saúde para identificar e cadastrar pessoas com deficiência

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## Keywords

Community health workers/education; Professional training; Professional competence; Disabled persons; Nursing assessment; Education, nursing, associate; Primary care nursing

## Descritores

Agentes comunitários de saúde/educação; Capacitação profissional; Competência profissional; Pessoas com deficiência; Avaliação em enfermagem; Educação técnica em enfermagem; Enfermagem de atenção primária

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## Abstract

**Objective:** To assess the learning of community health agents, in the form of knowledge and skills, to conceptualize, identify and register people with hearing, visual, physical and multiple impairments.

**Methods:** Cross-sectional study involving 173 community health agents, who were trained to identify and register disabled people. The data were organized in an electronic worksheet and analyzed to calculate the statistical significance.

**Results:** The community health agents identified 1,512 disabled people. The instruments of the hearing impaired were correctly completed in 83.5% and the error rate for the visually impaired was 15.3%, with ( $p < 0.0001$ ). The concepts of disabled person, low vision, hearing and physical impairment were understood ( $p < 0.0001$ ).

**Conclusion:** The assessment of the community health agents' knowledge and skills to conceptualize, identify and register disabled people was satisfactory, showing the need for complementary training on abstract concepts.

## Resumo

**Objetivo:** Avaliar a aprendizagem do agente comunitário de saúde, na forma de conhecimentos e habilidades para conceituar, identificar e cadastrar pessoas com deficiência auditiva, visual, física e múltipla.

**Métodos:** Estudo transversal que incluiu 173 agentes comunitários de saúde, que foram capacitados para identificar e cadastrar pessoas com deficiência. Os dados foram organizados em planilha eletrônica e analisados para cálculo da significância estatística.

**Resultados:** Os agentes comunitários de saúde identificaram 1.512 pessoas com deficiência. Os instrumentos dos deficientes auditivos foram corretamente preenchidos em 83,5% e o índice de erros no dos deficientes visuais foi de 15,3%, com ( $p < 0,0001$ ). Os conceitos de pessoa com deficiência, baixa visão, deficiência auditiva e física foram compreendidos ( $p < 0,0001$ ).

**Conclusão:** Foi satisfatória a avaliação dos conhecimentos e das habilidades dos agentes comunitários de saúde para conceituar, identificar e cadastrar pessoas com deficiência, evidenciando a necessidade de capacitação complementar nos conceitos abstratos.

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## Introduction

Sociodemographic and health indicators of disabled people in Brazil are rare and lack reliability to demonstrate the living and health conditions in this significant part of the population. According to the 2010 Census, approximately 24% of the population lives with some kind of partial or total sensory, physical or intellectual impairment.<sup>(1)</sup> This percentage may be underestimated, as the civil organizations in defense of disabled people question the census methods used to estimate the number of people living with disabilities.

There is an urgent need to identify and registered disabled people, from the perspective of formulating, implanting and implementing public health policies.<sup>(2)</sup> At the same time, knowledge, skills and attitudes need to be developed for the purpose of competency building among health professionals at different care levels, with a view to the appropriate treatment of people living with disabilities.

The Family Health Strategy is the care level closest to individuals and their families. There is an urgent need to prepare human resources in Primary Health Care for this purpose. Community health agents are highlighted as mediators between the team and the community, justifying competency building and skills development to work with disabled people. Thus, the objective was to assess the learning of community health agents, in the form of knowledge and skills to conceptualize, identify and register people with hearing, visual, physical and multiple impairments.

## Methods

A cross-sectional study was undertaken in 2010 in the city of Crato, State of Ceará, in the Northeast of Brazil. The subjects were community health agents who participated in a free course after awareness raising. The 40-hour training addressed concepts related to disability, special needs, disadvantage, physical impairment, hearing impairment, blind person, low vision, visual impairment and multiple impairment. At the same time, they were prepared

to identify and register disabled people living in the city, in the urban and rural areas. The content considered the curricular reference framework of the technical course for Community Health Agents, according to current Brazilian and international health laws.

At the end of the training, the knowledge gained in the educative process was assessed through the application in the classroom of a questionnaire that consisted of nine objective multiple-choice questions with five alternative answers. Any items left unanswered or blank were considered as wrong answers.

Next, the community health agents went into the field to identify and registered disabled people, completing data collection instruments, for hearing, visual, physical and multiple impairments. When the person had more than one impairment, one form was used for each. The form included the name, address, socioeconomic characteristics (gender, age, education, color, personal and family income, and years of disability) and characteristics of the condition (type of disability, partial or total and laterality, cause and use of orthoses or prostheses).

The completion of the instrument was classified on a five-level scale, which considered bad in case of erasures or incomplete answers for the demographic and socioeconomic data, characteristics of the condition, use of orthosis or prosthesis and length of disability; good when the items use of orthosis or prosthesis and length of disability were complete inappropriately; very good when the identification, address, socioeconomic data, characteristics of the condition, prosthesis and length of disability were completed correctly; and excellent for instruments completed without erasures and without any blanks.

The data were organized in an Excel® worksheet and analyzed in the software Statistical Package for the Social Sciences for descriptive analysis of the data. Statistical significance was set at  $p < 0.001$ , the proportions test was applied and the health agents' sociodemographic and professional data were described.

The study development complied with the Brazilian and international standards for ethics in research involving human beings.

## Results

The participants in the competency building course for care delivery to disabled people were 173 (93%) community health agents who were working in the city in January 2010.

Table 1 displays the characteristics of the community health agents who were working during the study period.

**Table 1.** Profile of community health agent

| Characteristics                        | n(%)      |
|--|-----------|
| Gender                                 |           |
| Female                                 | 161(93.0) |
| Male                                   | 12(7.0)   |
| Age (years)                            |           |
| 21.9-30.5                              | 28(16.1)  |
| 30.6-39.2                              | 39(22.6)  |
| 39.3-48.0                              | 51(29.5)  |
| 48.1-56.8                              | 35(20.2)  |
| 56.9-65.3                              | 20(11.6)  |
| Education level                        |           |
| Primary Education                      | 12(6.9)   |
| Secondary Education                    | 136(78.6) |
| Undergraduate and Graduate Education   | 25(14.5)  |
| Courses                                |           |
| Technical - Community Health Agent     | 114(65.9) |
| Other courses                          | 106(61.3) |
| Work as community health agent (years) |           |
| Up to 2                                | 70(40.5)  |
| 3-10                                   | 22(12.7)  |
| 11-15                                  | 44(25.4)  |
| 16-20                                  | 37(21.4)  |

Table 2 presents concepts related to disabled people, which the community health agents learned during the training process. This activity involved 154 subjects who answered the post-course assessment. Statistical significance was observed, demonstrated the acquisition of the concepts physical, hearing, visual and multiple impairments. Nevertheless, the agents demonstrated difficulties to assimilate concepts of disability, special needs, disadvantage, blind person and low vision.

**Table 2.** Post-course learning assessment of disability-related concepts the community health agents learned

| Concept                       | Correct<br>n(%) | Wrong<br>n(%) | Z test<br>for proportions |
|-------------------------------|-----------------|---------------|---------------------------|
| Disability                    | 98(63.6)        | 56(36.4)      | 0.016                     |
| Special needs                 | 79(51.3)        | 75(48.7)      | 0.731                     |
| Disadvantage                  | 76(49.3)        | 78(50.6)      | 0.954                     |
| Physical impairment           | 119(77.3)       | 35(22.7)      | <0.0001                   |
| Hearing impairment            | 132(85.7)       | 22(14.3)      | <0.0001                   |
| Blind person                  | 102(66.2)       | 52(33.8)      | 0.002                     |
| Person with low vision        | 146(94.8)       | 8(5.2)        | 0.0001                    |
| Person with visual impairment | 148(96.1)       | 6(3.9)        | <0.0001                   |
| Multiple impairment           | 143(92.9)       | 11(7.1)       | <0.0001                   |

n=154

In total, 1,512 disabled persons were identified, related to physical (595), visual (506), hearing (235) and multiple (176) disabilities. The 173 community health agents who participated in the training collected these subjects' data.

In table 3, the best completion of the instruments (very good and excellent) is observed for the hearing impaired (83.5%) and the worst (bad or regular) for the visually impaired, with 15.3% ( $\chi^2 = 188.0$ ;  $p < 0.0001$ ).

**Table 3.** Assessment of completion of data collection instruments according to Likert scale, per disability type

| Disability | Bad<br>n(%) | Regular<br>n(%) | Good<br>n(%) | Very Good<br>n(%) | Excellent<br>n(%) | p-value <sup>a</sup> |
|------------|-------------|-----------------|--------------|-------------------|-------------------|----------------------|
| Visual     | 22 (4.3)    | 55 (10.9)       | 133 (26.3)   | 136 (26.9)        | 160 (31.6)        | <0.0001              |
| Hearing    | 8 (3.4)     | 30 (12.8)       | 1 (0.4)      | 135 (57.4)        | 61 (26.0)         | <0.0001              |
| Physical   | -           | 15 (2.5)        | 172 (28.9)   | 285 (47.9)        | 123 (20.7)        | <0.0001              |
| Multiple   | 7 (4.0)     | 15 (8.5)        | 29 (16.5)    | 79 (44.9)         | 46 (26.1)         | <0.0001              |

$\chi^2=188.0$ ;  $p < 0.0001$ , (scale versus disability type); p1 test of proportions

## Discussion

The fact that the data were collected in a single city was accepted as a study limit. The results were interpreted in the light of the theoretical framework of the Brazilian classification for the disability concepts that were studied, regarding the interpretation of the completion of the identification and registration instruments of the disabled people.

The study in focus demonstrated that the community health agents are sensitive to the disability

problem, and that pedagogical projects conducted by nurses and focused on this public promote professional training to build the competences needed for health care. Thus, nursing will be able to deliver high-quality care to disabled people.

The profile of the community health agents in this study is similar to that of the professionals in other States,<sup>(3-5)</sup> centered in the female gender, between 20 and 49 years of age and mostly holding a secondary and/or higher education degree. Subtle changes were verified in the profile identified in 2008 for the community health agents who worked in the city under study.<sup>(6)</sup>

The professional experience, which used to be between 6 and 10 years (30%), changed to less than 2 years, due to the competitive examination held in 2008. In addition, the educational phases of the technical course for Community Health Agents have been discontinued since 2007, initiated by 62% of the community health agents in Crato, who have not reached the degree of technical professional yet.<sup>(6)</sup> This situation can contribute to the low acquisition level of the competences needed to work with the population, mainly those living with disability.

The community health agents and other team members of the Family Health Strategy and Family Health Support Center, care services that are part of the primary health care level in Brazil, are targets of continuing education actions and possible health technicians. Therefore, they should participate in previously formulated educational processes that combine the descriptors health promotion, clinical action, educational activities, epidemiological foundations and political-organizational education, so as to minimize obstacles in the health work process.<sup>(7)</sup>

The facilities and weaknesses in competency building some of the community health agents in this study experienced may be related to aspects like the professional selection model, the absence or inappropriateness of competency-based training programs and the lack of local discussion on individual and collective care forms, focused on the health promotion of disabled people. In addition, the general competences of community health agents do

not address this theme, as verified in the laws that regulate the profession and in the Brazilian primary health care policy.

In the official documents that rule the profession, no actions pertinent to disabled people are mentioned. Only general activities for the population are indicated. On the other hand, care for this population is included in the curricular reference framework of the profession, in which intensified care is proposed, especially for people who are disabled or live in risk situations.

The analysis of Ministry of Health documents identified the concept of competences organized around integrative and structuring axes of professional practices, within a critical-emancipatory perspective, with regard to the work process of health professionals who, in contexts like the Family Health Strategy, should be capable of achieving the expected performance, in real time, using performance attributes related to the professional practice, with respect for sociocultural, political-economic and historical-geographic dimensions.<sup>(8,9)</sup> In this locus, the workers should be able to develop activities with disabled people, their families and the community.

Hence, the community health agents understood most of the concepts needed for professional practice that were assessed in this study as, at the end of the course, they were able to identify and register the disabled people in their coverage areas. That is so because the assessment of the theoretical concept domain showed statistical significance for the concepts related to the disabilities, as discussed and identified in the national census. The community health agents demonstrated less apprehension or difficulties to understand the most abstract concepts. Professionals urgently need to develop competences to act in primary care, based on the health promotion concept, concerning the care actions for visually, hearing, physical and multiply impaired people, within their coverage areas, in the processes undertaken for that end.

Health promotion implies the development and mobilization of the social actors in the change processes. At the same time, the competency pro-



file of community health agents is involved in health promotion ideals in the dimensions expressed in the knowledge (knowing), skills (know-how) and attitudes/values (knowing-to-be). These professionals are expected to be able to mobilize these competences in the community, in the domestic sphere and in social spaces, for the sake of individual and collective health promotion and disease prevention.<sup>(10)</sup>

The attitude/values dimension incorporates collective and individual exchange aspects of respect for the culture, the values and the traditional health practices. In this sphere, efforts are made to develop the community health agents' leadership and pro-activeness skills in conflict situations, with a view to detecting problem solving and/or management mechanisms, with correct and timely decision making, as a result of teamwork, aiming for the integrality and wellbeing of the individuals, the families and the community under their responsibility.<sup>(3,6,10)</sup>

The health agents' work requires the use of instruments and tools, such as interviews, home visits, family registration, community mapping and community meetings. As evidenced, specific actions for disabled people, although not excluded, are not undertaken at any time. The particularity appears in the actions described in the curricular reference framework of the technical course for Community Health Agents.<sup>(6)</sup>

The disabled people appear in the work of the community health agents in the registration of the families, without specifying any type or characteristics of the disability. This justifies the need for learning to conceptualize the disabled people, when the difficulty to absorb deeper and more abstract concepts was assessed, such as disability, special needs, disadvantage and low vision, in a 40-hour course.

Educational experiences of community health agents are rarely mentioned. In that perspective, these processes should consider them as strategic professionals for health promotion and a concrete possibility to break with the traditional format in which health care is perceived and practiced, involving people, their knowledge and environments.<sup>(11)</sup>

The role of health agents is fundamental for the practice of the Family Health Strategy and the applicability of the expanded health concept. Thus, the activities, the analysis of the work process or the assessment of the activity results and their central and articulating role among families, team and community are emphasized.<sup>(12,13)</sup> This theme is fertile ground for scientific production. The discussion of the identity construction of the community health agents in the work process reveals contradictions between the proposed knowledge and the agents' knowledge needs, as well as in the facilities and difficulties faced in the work process.<sup>(14)</sup>

To describe the education process of community health agents to attend to disabled people, the State's role needs to be discussed with regard to continuing education, and also regarding the promotion of training with high competency assessment standards, in order to avoid the hazardous road of undergraduate programs, which are often based on the mere conclusion of the course as a requirement to enter the job market.<sup>(13)</sup>

Knowledge about the physiopathology of disabilities enhances the community health agents and the community's understanding about the care procedure for disabled people, which can influence their quality of life through appropriate care for each problem. Thus, the mediating function attributed to community health agents would take place in pedagogical education practice for the community's actual problems, corresponding to the disability and the caregivers' need for learning, as shown in tables 2 and 3 and in the study by Duarte et al.<sup>(15)</sup> Besides the conception of disability as a social and health/disease process, the community health agents should be competent to identify, communicate with and address disabled people and their families appropriately.

Due to the limitations deriving from the disability, the family plays a preponderant role in the transmission of pertinent information that complements the data the disabled person gives to the community health agents, when that is possible. In this context, the approach and appropriate orientation

of these families in care delivery to disabled people are fundamental, collaborating with the collection of useful data for the community health agents to elaborate a complete and coherent register. In that sphere, the evaluation of the registration forms will allow the community health agents and the team to recognize the users' health profile and to develop action that allow the community to get to know the information obtained in the socio-epidemiological surveys.<sup>(6)</sup>

In addition, the Brazilian Ministry of Health's assessment of the primary care quality determines that the work process of health teams and agents should be focused on the identification, register and care delivery to disabled people, in accordance with the assessment instruments applied in the Access and Quality Improvement Program. After this training course, it was evidenced that the assessment of the community health agents' knowledge and skills to conceptualize, identify and register disabled people was fruitful. The length of the training should be enhanced, deepening abstract concepts like disability, disadvantage, special needs, blind person and low vision.

Thus, the community health agent profile designed in the official discourse for the profession characterizes these professionals as multifaceted, but their qualifications reveals social, economic and mainly educational limitations. Participatory educational processes, which are part of the local reality, can build extremely complex competences required to attend to disabled people.

Building competences requires providing the community health agents with contents and techniques through significant practices related to the realities the disabled people within their coverage area experience.

## Conclusion

The assessment of the community health agents' knowledge and skills to conceptualize, identify and register disabled people was fruitful, despite the short time and the need to go deeper into abstract

concepts, such as disability, disadvantage, special needs, blind person and low vision.

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## Collaborations

Maia ER and Pagliuca LMF contributed to the conception of the project, analysis and interpretation of the data, writing of the article and final approval of the version for publication. Almeida PC collaborated with the analysis and interpretation of the data and final approval of the version for publication.

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