

ASSESSMENT OF COMMUNITY HEALTH WORKERS' LEVEL OF INFORMATION ON LEPROSY

Avaliação do nível de informação sobre hanseníase dos agentes comunitários de saúde

Evaluación del nivel de información de los agentes comunitarios de salud sobre la lepra

Original Article

ABSTRACT

Objective: To assess the level of information of Community Health Workers (CHW) regarding leprosy and aspects such as diagnosis, cure, treatment and transmission. **Methods:** This is a quantitative descriptive cross-sectional study. Data were collected using a questionnaire with closed-ended questions divided into topics about the disease - general aspects (block 1), diagnosis (block 2), transmission (block 3) and treatment (block 4) of leprosy - applied to 43 CHWs from Cocal, Piauí from January to March 2016. Participants had to choose between the response options: yes, no or do not know. **Results:** the level of knowledge was "good" in block 3, "fair" in blocks 1 and 4 and "poor" in block 2. Considering the general overview, CHWs knowledge was considered fair. **Conclusion:** The results obtained in this study showed a performance below expectations for CHWs regarding the main aspects of leprosy, pointing out that more attention should be given to the continuing health education of this professional.

Descriptors: Leprosy; Community Health Worker; Public Health.

RESUMO

Objetivo: Avaliar o nível de informação dos Agentes Comunitários de Saúde (ACS) sobre a hanseníase e os aspectos como diagnóstico, cura, tratamento e transmissão. **Métodos:** Trata-se de uma pesquisa quantitativa, descritiva e transversal. Para a coleta de dados utilizou-se um questionário com perguntas objetivas divididas em tópicos sobre a doença: aspectos gerais (bloco 1), diagnóstico (bloco 2), transmissão (bloco 3) e tratamento (bloco 4) da hanseníase, aplicado a 43 ACS de Cocal, Piauí, entre janeiro e março de 2016. Os participantes tinham como opções de respostas: sim, não e não sei responder. **Resultados:** Foi observado um nível de conhecimento "bom" para o bloco 3, "regular" para os blocos 1 e 4 e "ruim" para o bloco 2. Quando analisado o panorama geral, o conhecimento dos ACS foi considerado regular. **Conclusão:** Os resultados obtidos nesta pesquisa evidenciaram um nível de informação aquém do esperado para os ACS sobre os principais aspectos da hanseníase, fazendo-se necessário que maior atenção seja dada na educação permanente em saúde desse profissional.

Descritores: Hanseníase; Agente Comunitário de Saúde; Saúde Pública.

Jefferson Carlos Araujo Silva⁽¹⁾
Mara Dayanne Alves Ribeiro⁽²⁾
Sabryna Brito Oliveira⁽³⁾

1) President Dutra University Hospital
- Federal University of Maranhão
(Hospital Universitário Presidente Dutra
- Universidade Federal do Maranhão - HU-
UFMA) - São Luis (MA) - Brazil

2) Federal University of Ceará
(Universidade Federal do Ceará - UFC) -
Sobral (CE) - Brazil

3) Federal University of Minas Gerais
(Universidade Federal de Minas Gerais -
UFMG) - Belo Horizonte (MG) - Brazil

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RESUMEN

Objetivo: *Evaluar el nivel de información de los Agentes Comunitarios de Salud (ACS) sobre la lepra y sus aspectos como el diagnóstico, la cura, el tratamiento y la transmisión.*

Métodos: *Se trata de una investigación cuantitativa, descriptiva y transversal. Para la recogida de datos se utilizó una encuesta con preguntas tipo test divididas en tópicos sobre la enfermedad: los aspectos generales (bloque 1), el diagnóstico (bloque 2), la transmisión (bloque 3) y el tratamiento (bloque 4) de la lepra que fue aplicada a 43 ACS de Cocal, Piauí, entre enero y marzo de 2016. Los participantes tenían como opciones de respuestas: sí, no y no sé contestar.* **Resultados:** *Se observó un nivel de conocimiento “bueno” para el bloque 3, “regular” para los bloques 1 y 4 y “malo” para el bloque 2. El conocimiento de los ACS fue considerado regular tras analizar el panorama general.*

Conclusión: *Los resultados de esta investigación evidenciaron un nivel de información mayor de lo que se esperaba de los ACS sobre los principales aspectos de la lepra, señalando la necesidad de más atención para la educación permanente en salud de ese profesional.*

Descriptor: *Lepra; Agentes Comunitarios de Salud; Salud Pública.*

INTRODUCTION

Leprosy is a chronic infectious disease caused by the *Mycobacterium leprae*, which highly capable of infecting a large number of individuals. The disease is highly infectious, but few people become ill due to the low pathogenic potential of the bacillus⁽¹⁾.

Leprosy is considered a public health problem in developing countries. The highest rates of leprosy are observed in intertropical and low-income countries⁽²⁻⁴⁾. The highest reporting rates are in countries in Asia and in the Americas, where Brazil stands out as the second country with the highest number of cases in the world⁽⁵⁾. The World Health Organization (WHO) classifies leprosy into two types – paucibacillary and multibacillary – and the neural impairment is the main reason for stigma in patients infected with Hansen’s bacillus^(4,6).

In Brazil, the North and Northeast regions are responsible for the highest incidence and prevalence of cases. According to the Ministry of Health (MOH), the state of Piauí stands out among Northeastern states as the second with the highest prevalence and the fifth with the highest incidence of cases of the disease⁽⁷⁾.

In Brazil, it is necessary to intensify leprosy surveillance actions, which should be aimed to provide greater effectiveness in the diagnosis and treatment of the

disease, especially in regions with the highest concentration of cases in the country⁽⁸⁾. The main strategy of the MOH is the integration of actions for the disease diagnosis and treatment into primary health care. Thus, Family Health Strategy (*Estratégia Saúde da Família – ESF*) teams, Community Health Workers (CHW) and all centers of the Unified Health System (*Sistema Único de Saúde – SUS*) are now integrated into the patient care network, facilitating universal access to diagnosis and treatment⁽⁷⁾. In addition, it is important to continually improve information systems, a fundamental activity to ensure adequate monitoring of the epidemiological situation of leprosy in Brazil, in order to achieve the goal of eliminating the disease as a public health problem^(8,9).

The implementation of SUS led to the development of important strategies for internalization and promotion of health, as well as changes in the orientation of public health policies. In this context, health prevention and the establishment of the ESF, as well as professions to facilitate interaction between the health care system and the community, such as the CHWs⁽¹⁰⁾, stand out. All these measures are aimed at preventing disease cases from worsening by treating them in primary health care and ensuring that health care is delivered to the user in the family environment, treating the family as a whole^(11,12).

From then on, the process of decentralization of leprosy care was put into effect with the training of family health professionals: CHW, nursing technicians, family physicians and nurses. The purpose of this internalization would be the treatment of cases in local centers and the promotion of health education activities. This fact resulted in a greater effectiveness of the decentralization of disease control actions, with consequent increase in the detection coefficient and lower treatment abandonment⁽¹³⁾.

The campaigns to combat leprosy aim to strengthen epidemiological surveillance and health promotion actions, especially the continued education of health professionals involved in the identification of new cases and follow-up of patients undergoing treatment^(3,14,15). The CHW, who is responsible for the link between the Primary Health Care Center (*Unidade Básica de Saúde – UBS*) and the community, is seen as an information disseminator responsible for the identification of new cases^(16,17).

The CHW works in conjunction with the multidisciplinary team in the follow-up of leprosy patients in order to reduce relapses, identify contacts and new cases⁽¹⁸⁾. Through home visits, the worker guides the patient with leprosy regarding self-care, proper administration of the medication and regular visits to the UBS so that the medical and nursing staff can evaluate the correct course of treatment^(12,15,18).

CHW's adequate level of information on aspects such as diagnosis, transmission and treatment of leprosy promotes the provision of useful information to users that can help reduce cases and relapses^(3,12,14). The objective of this article was to assess the level of information of Community Health Workers (CHW) regarding leprosy and aspects such as diagnosis, cure, treatment and transmission.

METHODS

The present study consists of a quantitative descriptive cross-sectional analysis carried out in the municipality of Cocal, Piauí between January and March 2016. The municipality has 14 Family Health Strategy (*Estratégia Saúde da Família – ESF*) teams distributed between urban and rural areas. The teams are composed of 68 CHWs plus physicians, nurses and nursing technicians⁽¹⁹⁾.

The study included CHWs linked to the Municipal Health Secretariat (*Secretaria Municipal de Saúde – SMS*) of the municipality. In addition, completing the questionnaire and giving written consent through the Free and Informed Consent Form were also inclusion criteria. Incomplete questionnaires, questionnaires from professionals who did

not give their written consent and CHWs who were not working during the study period were excluded.

A questionnaire containing 32 questions on general aspects, diagnosis, transmission and treatment of leprosy was applied to CHWs in an attempt to measure the level of information of these professionals. Participants had the following answer options: yes, no, and do not know. The questionnaire was applied in a reserved room of the UBS without any access to means that could help participants answer the questions and under the supervision of a previously trained researcher.

Data were analyzed using the following author-developed scale according to the total of correct answers obtained in the questionnaire:

Data were entered in Microsoft Office Excel version 2013. Data underwent descriptive analysis based on the reading of percentages of categorical and numerical variables.

The study was approved by the Research Ethics Committee of the Eduardo de Menezes Hospital/HEM/FHEMIG under Opinion No. 1.353.498. The research complied with the criteria of Resolution No. 466/2012, which regulates research involving human beings.

Table I - Scale for measuring Community Health Workers' (CHW) level of information about leprosy. Cocal, Piauí, 2016.

Level of Knowledge	Total of right answers (%)
Excellent	90 – 100
Very good	80 – 89
Good	70 – 79
Fair	60 – 69
Poor	50 – 59
Very poor	Below 50

RESULTS

Participants were 43 (63.23%) CHWs who were currently working in the municipality. The others were not included because they either refused to participate or were not present at the time of collection. Regarding gender, 32 (74.41%) participants were women and 11 (25.58%) were men. Of these CHWs, 17 (39.53%) reported that there were and/or there are people diagnosed with leprosy in their microregion. The results were categorized for analysis into 4 blocks: Block 1 – The disease (general aspects), Block 2 – Diagnosis, Block 3 – Transmission, Block 4 – Treatment.

In block 1, which covers the general aspects of the disease, most CHWs defined the disease as a contagious (79.06%, n=34) and infectious (62.79%, n=27) disease that affects the skin (97.67%, n=42) and nerves (74.41%, n=32). Differences were observed in the recognition of signs and

symptoms, with 58.13% (n=25) of participants stating that itch and redness at the affected site are the main symptoms while 83.72% (n=36) pointed out the appearance of various types of insensitive lesions.

As for the main diagnostic methods, the majority reported laboratory tests (83.73%, n=35) and clinical diagnosis of lesions (86.04%, n=37). A total of 83.72% (n=36) recognized the importance of the diagnosis for the treatment of the disease.

Regarding transmission, 67.44% (n=29) of participants pointed out that the disease could be transmitted through respiratory droplets from untreated patients; 86.04% (n=37) recognized that untreated people are sources of transmission; 95.34% (n=41) stated that the infectious agent stops being transmitted immediately after starting treatment.

As for treatment, the use of anti-inflammatories alone (39.53%, n=19) was the most reported therapy. Almost all

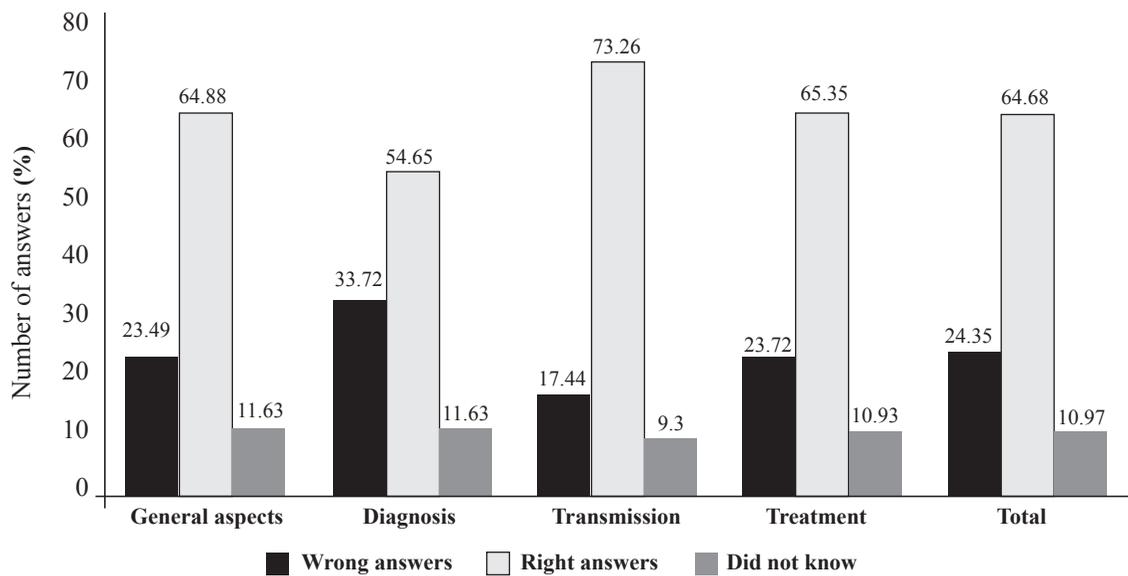


Figure 1 - Community Health Workers' level of information on leprosy. Cocal, Piauí, 2016.

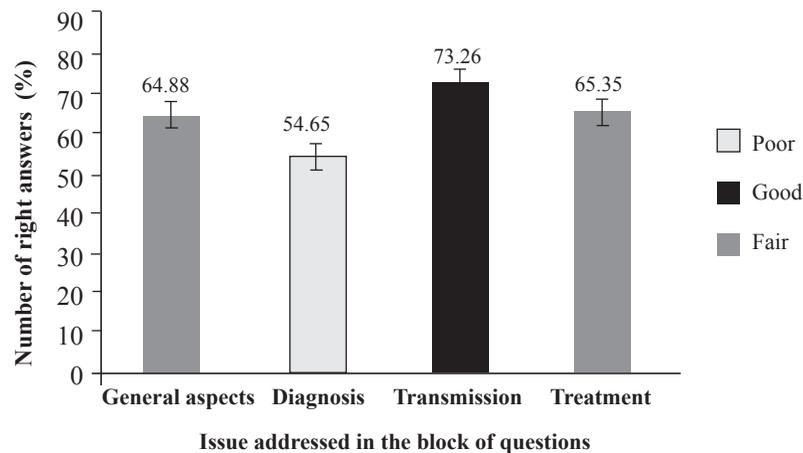


Figure 2 - Assessment of Community Health Workers' level of knowledge on leprosy. Cocal, Piauí, 2016.

CHWs stated that treatment should be completed until the end, even with the disappearance of symptoms (88.37%, n=38), and in a supervised way (93.02%, n=40). Correct treatment was associated with reduction of relapses (72.09%, n=31) and sequelae (90.69%, n=39). The cure was recognized by 97.67% (n=42) of the professionals.

The overview of wrong and right answers in each block can be visualized in figure 1.

The results indicate that the level of knowledge is "good" in block 3 (Transmission), "fair" in blocks 1 (General aspects) and 4 (Treatment), and "poor" in block 2 (Diagnosis), as shown in figure 2.

The general overview revealed that CHW's level of information, based on the total of right answers in the questionnaire, was fair, with a percentage of 64.68% (n=887).

DISCUSSION

CHWs are important mediators between the community and the health care team. Their role in the dissemination of information among individuals under their responsibility has been a focus of studies on several pathologies^(17,18). Some of the main duties of CHWs are carrying out home visits and active tracing of cases of prevalent diseases^(14,15,20).

In this aspect, these professionals should have an adequate knowledge about characteristics, signs, symptoms and treatment of most recurrent pathologies. The CHW plays a key role in the detection of cases of leprosy, a disease that must be identified early given its harmful and incapacitating characteristic^(4,6,14).

There are no studies on the impact of CHW's information level on the reduction of rates of diseases. However, it is believed that there is a chain of information in which the CHW – in possession of adequate subsidies – brings knowledge to the community. The latter acquires relevant information and contributes to the promotion of its own health⁽²¹⁾.

It was observed that the level of knowledge of CHWs from the municipality of Cocal, Piauí, with regard to the main aspects of leprosy, ranges from “good” to “fair” to “poor”. Additionally, the analysis of the general overview shows a “fair” level of knowledge (64.68%).

The CHWs interviewed obtained a mean of 73.26% of correct answers when asked about leprosy transmission. Knowledge about this topic was considered “good” because it presented between 70% and 79% of correct answers. The main transmission mechanisms used by the causative agents of leprosy were also identified by the majority of the CHWs interviewed. A study carried out in Teresina, Piauí, confirms these findings as its participants also presented a good knowledge about the transmission⁽²²⁾.

The CHWs interviewed in the present study had “fair” knowledge about the general aspects of the disease, with 60% to 69% of correct answers. In this block of questions, items such as contagious and infectious characteristics of the disease, anatomical sites affected and the main signs and symptoms of leprosy were addressed.

A similar result was found in a study carried out in the state of Paraíba, where the CHWs showed limited understanding of the basic aspects and clinical manifestations of leprosy⁽¹³⁾. On the other hand, another study reported that all CHWs interviewed recognized the main signs and symptoms of leprosy, as well as the basic characteristics of the disease, and classified the knowledge of these professionals as very satisfactory⁽²²⁾.

The block addressing “treatment” presented results that are similar to those found in the block addressing “general aspects”, for which the CHWs interviewed presented “fair” knowledge. This block of questions addressed issues such as therapeutic schemes, sequels, relapses, and cure of the disease.

In the study carried out in Paraíba, the CHWs also had difficulties in identifying actions for control and treatment of leprosy, although the therapeutic scheme used and the possibility of cure through treatment are clear for most

professionals, especially with regard to the multibacillary type⁽¹³⁾. Regarding treatment and prevention measures, the CHWs from Teresina performed less than expected⁽²⁰⁾. On the other hand, all the CHWs from Teresina recognized or cited at least one important aspect about the treatment of the disease, which highlighted their knowledge about leprosy treatment⁽²²⁾.

Most CHWs interviewed in the present study recognized the cure of leprosy through correct, complete and supervised treatment. The percentage of knowledge about the cure of leprosy associated with treatment is similar to that found in another study⁽¹³⁾ in which 97.7% of participants recognized the possibility of cure of the disease.

Leprosy is curable, but if left undiagnosed and untreated it can have serious consequences for patients and their families due to lesions that physically impair them. Adherence to proper treatment is fundamental for the elimination of the disease as it allows to eliminate transmission, block the source of infection and reduce the risk of sequelae; therefore, it is a strategic tool for the management of leprosy as a public health problem⁽²³⁾.

The work of CHWs is an important factor for the continuation of and adherence to Polychemotherapy (PCT) as they can guide the patient during the treatment and reaffirm the possibility of cure of the disease given that – despite the media coverage and the diffusion of leprosy care policies – the belief in the cure of the disease is not strong and negatively affects adherence to treatment^(24,25).

The importance of the information CHWs have about the therapy used may reflect in the actions for the control of the pathology as adherence or abandonment, self-care actions, cases of relapses or leprosy reactions can often be identified by this ESF member who has a closer contact with the community⁽¹³⁾.

The worst performance of CHWs was with regard to the diagnosis of leprosy. The mean total of right answers in this block was between 50 and 59%, which classified their knowledge about the methods of identification and diagnostic confirmation, operational classification based on diagnosis and differential diagnosis as “poor”.

Based on the investigation about the process of education and training of the CHWs from the aforementioned municipality, it is possible to point out some factors that may be influencing the level of knowledge of these professionals. For instance, their secondary education level and their non-understanding of their job tasks, which is a result from a poor guidance and continued education to perform the job, should be highlighted. In addition, none of the CHWs interviewed reported having participated in an update course on leprosy. Knowledge about the disease was acquired only during the vocational training course.

Such problem does not appear to be specific to this population. In a study conducted in four states in the Northern and Northeastern Brazil (Tocantins, Pará, Piauí and Maranhão), only half of the CHWs took a specific course on leprosy; however, the courses lasted 8 hours or less and the most recent ones had been taken two years before the interview⁽²⁶⁾.

The lack of training and update courses targeted at these professionals is corroborated by the literature^(13,20). Limited knowledge about basic disease issues may hinder the care provided by CHWs to patients. Continued and targeted health education is necessary due to the fact that the existence of incorrect or even precarious knowledge interferes in the provision of a better service to the population, resulting in attitudes contrary to the National Leprosy Control Program^(18,22).

It is known that health education focused on leprosy is still a problem that involves issues such as the identification of the signs and symptoms of the pathology and disease treatment, control and cure actions. Thus, the process of education and training of CHWs is pointed out as an outstanding way to develop efficient skills to be implemented in their work routine⁽¹³⁾. The guidance/information provided by CHWs is a primordial assignment of its work process; therefore, the continued education of these professionals must respect their singularities. However, the training courses offered are still incipient in relation to the CHWs demands^(13,17,18,22).

Thus, it is quite clear that there is a need for provision of training/education/update courses on leprosy to these professionals, with a focus on their approach. As the CHW job requires secondary education level, it is important to emphasize the importance language, which should be targeted and used according to the education level of the majority of these professionals. In addition, the content must be clear, direct, specific and targeted at the reality of these professionals. Researchers⁽²⁷⁾ observed the importance of this differentiated approach and carried out, in groups, health education actions with CHWs from Rio Grande do Sul, focusing on leprosy. In this sense, the project allowed to visualize, through educational groups, a practice that prioritizes CHWs needs for continued learning. This practice allowed CHWs to take a more critical look at the disease and its symptoms.

A limitation of the present study was the language used in the questionnaire, which did not consider the education level of the CHWs. Sometimes it was not possible to escape from the technical language that made it difficult for these professionals to understand issues related to the pathology, diagnosis, transmission and treatment of leprosy. Further

studies are suggested in order to analyze the impact of continuing education on the level of information of CHWs.

CONCLUSION

The results obtained in the present research highlighted a level of information that was lower than what was expected from CHWs from Cocal – Piauí. Participants presented a “fair” level of knowledge about the main aspects of leprosy considering the general overview. Greater attention should be drawn to the continuing health education of these professionals, promoting strategies that can minimize such a deficit – for instance, discussion groups or specific courses.

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Mailing address:

Jefferson Carlos Araujo Silva
Universidade Federal do Maranhão - UFMA
Hospital Universitário Presidente Dutra
Rua Barão de Itapary, 227
Bairro: Centro
CEP: 65020-070 - São Luís - MA - Brasil
E-mail: jeffcasilva@gmail.com