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Original Article

PRIMARY CARE NURSES' COGNITIVE AND ATTITUDINAL ABILITY IN LEPROSY CONTROL

APTIDÕES COGNITIVAS E ATITUDINAIS DO ENFERMEIRO DA ATENÇÃO BÁSICA NO BÁSICA NO CONTROLE DA HANSENÍASE

APTITUDES COGNITIVAS Y ACTITUDINALES DEL ENFERMERO DE LA ATENCIÓN BÁSICA EN EL CONTROL DE LA HANSENIASIS

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Objective: to investigate Primary Care nurses' cognitive and attitudinal abilities for leprosy control. Method: this is a quantitative descriptive study, conducted between January and December 2012, with 101 nurses from the seven sanitary districts of São Luis, Maranhão, Brazil. A structured questionnaire was used with five categories of answers, ranked according to the Likert scale. Scores were assigned scores to the answers, which led to the formation of a concept (excellent, very good, good, fair, poor). Results: 71.2% considered themselves capable, but 63.3% did not feel able to develop disability prevention actions and 83.1% followed the standardized protocol. Regarding cognitive and attitudinal abilities, the majority presented a very good concept (58.4% and 67.3%, respectively). Conclusion: nurses, according to the adopted classification, have good cognitive and attitudinal abilities. However, training in leprosy does not meet the real needs of these professionals in the actions of diagnosis and treatment of the disease.

Keywords: Ability. Professional competence. Role of the nursing professional. Leprosy.

Objetivo: investigar as aptidões cognitivas e atitudinais dos enfermeiros da Atenção Básica para o controle da hanseníase. Método: estudo descritivo quantitativo, realizado entre janeiro e dezembro de 2012, com 101 enfermeiros dos sete distritos sanitários de São Luís, Maranhão, Brasil. Utilizou-se um questionário estruturado com cinco categorias de respostas, ordenadas de acordo com a escala de Likert. Às respostas foram atribuídos escores que levaram à formação de um conceito (excelente; muito bom; bom; regular; ruim). Resultados: consideraram-se capacitados 71,2%, porém 63,3% não se sentem aptos para desenvolver ações de prevenção de incapacidades e 83,1% seguiam o protocolo padronizado. Quanto às aptidões cognitivas e atitudinais, a maioria apresentou conceito muito bom (58,4% e 67,3%, respectivamente). Conclusão: os enfermeiros, segundo a classificação adotada, possuem boas aptidões cognitivas e atitudinais. No entanto, as capacitações em hanseníase não atendem às reais necessidades de conduta desses profissionais nas ações de diagnóstico e tratamento do agravo.

Descritores: Aptidão. Competência profissional. Papel do profissional de Enfermagem. Hanseníase.

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Objetivo: investigar las aptitudes cognitivas y actitudinales de los enfermeros de la Atención Básica para el control de la hanseníasis. Método: estudio descriptivo cuantitativo, realizado entre enero y diciembre de 2012, con 101 enfermeros de los siete distritos sanitarios de São Luís, Maranhão, Brasil. Se utilizó un cuestionario estructurado con cinco categorías de respuestas, ordenadas de acuerdo con la escala de Likert. Las respuestas fueron atribuidos puntos que llevaron a la formación de un concepto (excelente; muy bueno; bueno; regular; malo). Resultados: se consideraron capacitados 71,2%, sin embargo 63,3% no se sienten aptos para desarrollar acciones de prevención de incapacidades y 83,1% seguían el protocolo padronizado. Sobre las aptitudes cognitivas y actitudinales, la mayoría presentó concepto muy bueno (58,4% y 67,3%, respectivamente). Conclusión: los enfermeros, según la clasificación adoptada, poseen buenas aptitudes cognitivas y actitudinales. Sin embargo, las capacitaciones en hanseníasis no atienden a las reales necesidades de conducta de esos profesionales en las acciones de diagnóstico y tratamiento del problema.

Descriptores: Aptitud. Competencia profesional. Papel del profesional de Enfermería. Hanseníasis.

Introduction

Hanses's disease, known since biblical times as leprosy, still presents great repercussion and importance for public health in Brazil and the world [1] due, among other things, to the great power to cause deformities and incapacities, and to bring not only physical but also psychological consequences that affect the lives of individuals in treatment, their family and the community in which they are inserted[2].

Leprosy control is directly related to diagnosis and treatment as early as possible, to avoid the appearance of sequelae and to reduce the time of exposure of household contacts[3-4]. In Brazil, between 1985 and 2005, there was a reduction in the prevalence rate from 19.0 to 1.48 patients per 10,000 inhabitants, but despite this reduction[5], this country ranks first place in Latin America and the second place in the world in number of cases, losing only to India. Data released by the Ministry of Health indicate that the general detection rate of the disease was 12.14 per 100 thousand inhabitants in 2014, corresponding to 24,612 new cases[6].

The State of Maranhão occupies the third place in Brazil in number of cases[7]. In this state, in 2015, 3,540 new cases of leprosy were detected, with a prevalence coefficient of 3.76 per 100 thousand inhabitants, of which 2,595 were in active registry[8]. In the capital, São Luís, the prevalence rate was 57.4/100 thousand inhabitants and the detection rate was 59.9/100 thousand inhabitants. Its high average detection rates exceed the average of the Brazilian Northeast and of Brazil in general[9].

The elimination of leprosy in Brazil, as a public health problem, has strategic actions based on increasing early detection and cure of diagnosed cases[1,3,6]. With this, patients should be treated on an outpatient basis, in primary health care, without the need for specialists or sophisticated equipment for the development of disease control activities, which facilitates their realization, even in minimally structured municipalities[10]. Teams need to be trained according to the needs of the service and inserted in the context of the Brazilian Public Health System (SUS) principles, with actions that include community participation and stimulate their reflection, as well as social commitment[10].

The way Primary Health Care teams have conducted actions aimed at prevention and leprosy control in recent years has provided an increase in cases diagnosed and treated, in addition to having placed the nurse as an essential actor for the elimination of this disease in Brazil. This professional occupies important spaces for the implementation of health policies, mainly with the expansion and broadening of the number of teams of the Community Health Workers Strategy (EACS in Portuguese) and of the Family Health Strategy (FHS)[11].

In this scenario, nurses have found a promising work space and expanded their insertion, standing out in relation to other

health professionals for developing assistance, administrative and educational activities, which are crucial to the consolidation and strengthening of primary health care within SUS. For nursing, this represents the possibility of reorienting its actions towards users' health needs and not only aiming at the rationalization of the work of physicians. In this sense, the nursing practice is directed towards its specific purpose, namely, the nursing care[12].

This study approaches the nurse's "cognitive and attitudinal abilities" in Primary Care, which are defined as the professional's knowledge (know-what) and skills (know-how) about leprosy control actions, respectively, considering, for this end, concepts about knowledge and skills[13]. "Cognitive abilities" contemplate the conceptual, diagnostic and treatment aspects, understanding that this knowledge enables the professional to have cognitive mastery, accumulation of knowledge, learning and experience. "Attitudinal abilities" refer to know-how skills about the set of actions related to suspected and diagnosed cases of leprosy, comprising the set of acquired behaviors that favor the way of performing tasks, applying knowledge, acting and thinking. Skill favors the application of competence and ability. In the field of training and health work, competencies appear as resources demanded from the workers, materialized through knowledge, skills and attitudes essential for the consolidation of SUS and the FHS[14-15].

The following guiding questions were formulated for this study: what are the cognitive skills regarding the diagnosis, treatment and complications of leprosy? And what are the nurse's attitudinal abilities when faced with situations experienced in the Leprosy Control Program? The objective of the study is to investigate the cognitive and attitudinal abilities of primary care nurses in leprosy control actions.

Method

This is a quantitative descriptive study, carried out in the municipality of São Luís, capital of the State of Maranhão, Brazil. Located on the north coast of the Northeast region, São Luís has a population of 1,014,837 inhabitants[16] and 7 sanitary districts, 6 in the urban zone and 1 in the rural zone. The present study was developed in these districts, specifically in the 42 Basic Health Units (BHU), where leprosy control actions are implemented. The municipality has currently 82 Family Health Strategy (FHS) teams and 36 teams of Community Health Workers (CHW).

The population consisted of all nurses registered in the Primary Care Information System (SIAB in Portuguese) of São Luís in 2012. Of the 113 registered nurses, 101 answered the questionnaire, corresponding to 89.4% of the total. Nurses who, at the time of the research, were not carrying out their activities due to maternity leave (3 practitioners), professional training leave, master's degree or doctorate (3 practitioners), or because they had not been located (6 practitioners) were not included.

Data collection was carried out in the period from January to December 2012, in two stages: in the first stage, we requested authorization to carry out the research and surveyed the number of nurses of EACS and FHS together with the Municipal Coordination; in the second stage, a pilot test of the instrument was carried out. After adjustments, during the visits to health units, meetings were held with the nurses in order to explain the relevance and the objectives of the research and, after acceptance, we requested the signing of the Informed Consent Form (ICF). Then, the (structured and self-administered) questionnaire, with closed questions, was distributed, and nurses were informed about the moment to give them back.

The elaboration of the instrument was based on the Ministry of Health guidelines[17] for leprosy control. It was organized in such a way as to achieve the objectives proposed in the study. The questionnaire included questions related to identification and professional characterization, including social (sex, age and marital status) and professional (training time, specialization, time of work in primary care and in leprosy control actions) aspects, as well as questions related to cognitive abilities on the diagnosis, treatment

and complications of leprosy, and to attitudinal abilities, including those related to the cure of the disease and regarding whether the practitioner feels able to perform diagnostic suspicion of a case, make the necessary referrals in cases of complications and reactions, and activities related to epidemiological research.

Regarding the dimension "cognitive abilities", the questionnaire contained 16 questions; With regard to the dimension "attitudinal abilities", there were 24 questions. The questions allowed 5 categories of answers, ranked according to the Likert scale. Scores were assigned to answers, ranging from 1 to 5 points. The total score of the individual was determined by the sum of the scores of the items, which led to the formation of a concept.

In the total score of the dimension "cognitive abilities", the variation was from 16 points (if the nurse indicated "I totally disagree" on all items) to 80 points (if the nurse indicated "I totally agree" on all items). Regarding the dimension "attitudinal abilities", the total score varied from 24 points (if the nurse indicated "I totally disagree" on all items) to 120 points (if the nurse indicated "I totally agree" on all items). Charts 1 and 2 show, respectively, the groups, score and concept of the dimensions: cognitive and attitudinal abilities.

Chart 1 – Groups, score and concept of the dimension cognitive abilities. São Luís, Maranhão, Brazil – 2013

Group	Score	Concept
I	68 to 80	Excellent
II	55 to 67	Very good
III	42 to 54	Good
IV	29 to 41	Fair
V	16 to 28	Poor

Source: Created by the authors.

Chart 2 – Groups, score and concept of the dimension attitudinal abilities. São Luís, Maranhão, Brazil – 2013

Group	Score	Concept
I	101 to 120	Excellent
II	81 to 100	Very good
III	62 to 80	Good
IV	43 to 61	Fair
V	24 to 42	Poor

Source: Created by the authors.

The numerical intervals corresponding to each group were found by dividing the amplitude — maximum score-minimum score in each dimension, namely, knowledge (64-16) and skills (120-24) — by five, total number of groups in each of them.

The data were entered and analyzed in Excel spreadsheets, 2007 data version. Before the analysis, the database was evaluated for its quality. A descriptive analysis of the data (absolute and relative) was carried out.

In compliance with the ethical principles of research involving human beings, as recommended in Resolution CNS/MS no. 466/12[18], This study was approved by the Research Ethics Committee (CEP) of the Municipal Health Department (SEMUS) of the municipality of São Luís, under the Opinion no. 2012.01.06.19/25.

Results

Among the participating nurses, 85 (84.1%) were female, 58 (57.4%) were between 25 and 34 years of age, and 65 (64.4%) were married (Table 1).

Table 1 – Distribution of primary care nurses by sex, age and marital status. São Luís, Maranhão, Brazil – 2013. (N=101)

Variable	n	%
Sex		
Female	85	84.1
Male	16	15.9
Age		
25 to 34 years	58	57.4
35 to 44 years	37	36.6
45 years or more	06	6.0
Marital status		
Married	65	64.4
Single	33	32.6
Divorced	02	2.0
Stable union	01	1.0
Total	101	100.0

Source: Created by the authors.

Regarding the specific training to work in leprosy control actions, 72 (71.3%) said they were qualified, however, when asked about disability prevention actions, 64 (63.4%) stated that they were not qualified. Questions related to permanent education showed that 58 (57.4%) nurses had conducted training courses aimed at control actions and 84 (83.2%) stated that they follow the protocol standardized by the Ministry of Health (Table 2).

Table 2 – Nurses' answers on specific training to address leprosy and other issues related to leprosy control actions. São Luís, Maranhão, Brazil – 2013. (N=101)

Question	Yes		No	
	n	%	n	%
Have you received specific training to work on leprosy control actions?	72	71.3	29	28.7
Have you received specific training in disability prevention actions?	37	36.6	64	63.4
Are primary care nurses qualified to provide care for leprosy?	27	26.7	74	73.3
Do you perform permanent education to develop actions for leprosy control?	58	57.4	43	42.6
Do you follow some protocol for leprosy control actions?	84	83.2	17	16.8

Source: Created by the authors.

Concerning cognitive abilities for leprosy diagnosis, transmission, treatment, complications and/or reactions, it was observed that 59 (58.4%) nurses were classified in group II, with the concept "very good". With regard to attitudinal abilities in relation to cure, ability to identify leprosy, conducting referrals if there were complications and/or reactions from leprosy, in addition to epidemiological surveillance actions, it was observed that 68 (67.3%) nurses were also classified with concept "very good" (Table 3).

Table 3 – Primary care nurses' cognitive and attitudinal abilities in leprosy control. São Luís, Maranhão, Brazil – 2013. (N=101)

Group	Concept	Cognitive abilities		Attitudinal abilities	
		n	%	n	%
I	Excellent	-	-	2	2.1
II	Very good	59	58.4	68	67.3
III	Good	40	39.6	31	30.6
IV	Fair	2	2	-	-
V	Poor	-	-	-	-
Total		101	100.0	101	100.0

Source: Created by the authors.

Note: Conventional signal used:
- Numerical data equal to zero not resulting from rounding.

Discussion

Most nurses were female, aged 25 to 34 and married, which shows the predominance of young women within the study context. A similar result was observed in the country, in the Northeast Region and in the state of Maranhão, where the percentages were 87.2%, 90.1% and 89.7%, respectively[19]. This female predominance might have been explained by some studies[20-22] that demonstrated the health work market trends, with the feminization of professions, specifically among Family Health Strategy practitioners.

The present study shows that nurses had information about leprosy. On the other hand, the majority (73.3%) of them did not feel able to attend the patient, despite being a specialist in Family Health. This indicates that the training does not transform professionals' conducts in actions for the diagnosis and treatment of leprosy.

Although the State has offered training to nurses on leprosy in recent years, there are still important needs in the conduct of diagnosis and treatment, since professionals, despite having received this training, have stated that they do not feel able perform diagnostic suspicion, for example. In view of the above, it is necessary to restructure the methodology of these training courses to better meet the needs of professionals and users.

Another important aspect is the regular assessment of the impact of training. In addition, there is a need for the creation of permanent education centers in medium and large municipalities in the State of Maranhão, with the insertion of training demands that address the theme of leprosy.

Among the nurses, the majority (83.2%) said to follow a specific protocol for action in leprosy control actions. On the other hand, even though there are protocols and technical recommendations to be followed in the execution of actions, SUS demands much more than this, when it requires a differentiated management model that reaches all of its principles and guidelines[1,23].

Regarding the answers on the questions directly related to the dimension "cognitive abilities", 58.4% and 39.4% of nurses presented "very good" and "good" concepts respectively, demonstrating that training and constant search for permanent education crucial to quality in the development of professional practice. This domain, the know-what, is defined[13-14] as the set of contents obtained predominantly through exposure, reading and critical re-elaboration, which enable the professional to master cognitive knowledge and the ability to make decisions and solve problems in their area of performance. However, even with specific training to work in leprosy control actions (71.3%), the majority (83.2%) stated following only the protocol recommended by the Ministry of Health[1,17].

Regarding the issues related to the nurse's dimension "attitudinal abilities" in the control of leprosy, 67.3% presented a "very good" concept.

This domain, the know-how, comprises the set of behaviors acquired through observation, introjection and critical re-elaboration that give the professional the mastery of a know-how, as well as the ability to make decisions and solve problems in their area of performance[13,15]. On the other hand, there was a low percentage (36.6%) of nurses with specific training in disability prevention actions.

This fact demonstrates that the lack of training of professionals for specific actions does not favor leprosy control and prevention, especially in patients' dermatological and neurological evaluation and in household contacts, since people living with a leprosy patient have a greater risk of being infected than the general population[24]. Failure to investigate disabilities and contacts can result in loss of opportunity to prevent deformities and early detection of cases, thereby altering the transmission process of *Mycobacterium leprae*[25].

Conclusion

The results allow us to conclude that nurses, according to the classification adopted, have cognitive and attitudinal abilities for leprosy control in the Primary Care context, presenting a "very good" concept, respectively. However, there was a low percentage of nurses with specific training in disability prevention actions, which makes them feel unable to perform diagnostic suspicion.

So, training on leprosy does not meet the real needs of nurses' behavior in the diagnosis and treatment of the disease. That is, nurses are trained to work on leprosy actions, but such training does not lead to the development of a safe practice in relation to diagnostic suspicion. It is evident, therefore, that the training needs to focus on the real needs of nurses in providing care for the individual with leprosy, with an emphasis on the know-how, as well as the ability to make decisions and solve problems in their area of performance.

Collaborations

1. conception, design, and data analysis and interpretation: Josélia de Jesus Garcia Pinheiro and Arlene de Jesus Mendes Caldas;

2. drafting and critical revision of the article: Sâmea Cristina Santos Gomes, Dorlene Maria Cardoso de Aquino and Arlene de Jesus Mendes Caldas;

3. final approval of the version to be published: Josicelia de Jesus Garcia Pinheiro, Sâmea Cristina Santos Gomes, Dorlene Maria Cardoso de Aquino and Arlene de Jesus Mendes Caldas.

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