

## Nursing and Self-Care Care Practices of Riverside Inhabitants with Cutaneous Leishmaniasis

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### Research Article

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#### ABSTRACT

**Background:** Self-care enables the person to reintegrate and reestablish health conditions. The purpose of this research was to analyze nursing care and self-care for cutaneous leishmaniasis in Nova Olinda do Norte, Amazonas State, according to Orem's Self-Care Theory.

**Material and methods:** This descriptive study was carried out qualitatively in Nova Olinda do Norte (municipality). Data were obtained from semi-structured interviews and analyzed through a content analysis from Bardin's perspective. Nursing care practices and self-care practices emerged as categories for discussion.

**Results:** A predominance of cutaneous leishmaniasis was observed among males aged 20 to 60. Their activities included hunting, fishing, and direct contact with nature.

**Conclusion:** The main self-care practices employed by this group were anchored in the use of natural resources to treat the disease, indicating the influence of cultural, socioeconomic, and geographic factors and inaccessibility to a daily health service.

### INTRODUCTION

Understanding self-care in the health-disease process involves thinking of the meanings inherent in taking care of oneself from health promotion to disease prevention and identifying the differences in recognition and representations of individualized care, starting from the interpretation of care as assistance or dedication to something, someone, or oneself. Thus, self-care enables the person to reintegrate and re-establish health conditions, thus reworking disharmony, health changes, and the disintegration of the constituent elements for quality of life <sup>[1]</sup>.

The term "self-care" was introduced to the field of nursing by Dorothea Elisabeth Orem in 1958; she began her training in nursing in 1930 and practiced as a nurse, educator, and manager in the administrative and consulting sector <sup>[2]</sup>.

The self-care theory is linked to understanding the limitations and conditions of people when performing basic and everyday activities <sup>[3]</sup>. The self-care theory encompasses the general theory of nursing and was formulated from two other interrelated theories. Accordingly, the scope and applicability of Orem's theory <sup>[2]</sup> is relevant for facilitating aspects of care and promoting quality of life for people facing problems associated with infectious diseases, such as leishmaniasis.

American cutaneous leishmaniasis (ACL) is a polymorphic disease of the skin and/or mucous membranes. The accompanying lesions can be ulcerated, nodular, single, or multiple; they are caused by protozoa of the genus *Leishmania*. Several names have been suggested for the disease; the most popular are Bauru ulcer, tapir nose, and oriental sore <sup>[4]</sup>. Its frequency is notorious in populations with low purchasing power and is classified among the main neglected diseases <sup>[5]</sup>.

The epidemiological profiles of leishmaniasis are classified into three groups:

- 1) Wild, when disease transmission occurs in environments with areas of primary vegetation where the territory presents natural biological characteristics and biodiversity;
- 2) Occupational and leisure, when transmission of leishmaniasis is the result of man-made disordered forest exploitation;
- 3) Rural and peri-urban, when transmission of the disease results from adaptation of the vector to the peridomicile <sup>[4]</sup>. In

Amazonas, ACL is observed particularly in municipalities with projections for settlements and a history of territorialisation. Sand-flies and wild animals transmit the disease when man invades their habitat <sup>[6]</sup>.

In reviewing the risk factors for ACL infection, we considered it essential to approach the disease affecting riverside inhabitants (ribeirinhos), as they live on natural resources resulting from agriculture, livestock, and crafts. Further, they constantly enter into areas not populated by man <sup>[7]</sup>. Ribeirinho refers to any person who inhabits the margins of rivers, lakes, or streams and maintains a permanent relationship with the environment (soil, water, forest, and animals existing in the region) <sup>[8,9]</sup>.

This study was based on Dorothea Orem's Self-Care Theory <sup>[2]</sup>, chosen because it is a theory that has as its principle the innate capacity of people to take care of themselves. It will contribute to the creation of knowledge for health professionals, especially nursing professionals, regarding the importance of the interaction of riverside inhabitants carrying ACL in the construction of interdisciplinary and holistic care models emphasizing self-care and innovations in care practices (professional) and self-care so that they integrate and complement each other through a therapeutic contract.

In this study, practices in nursing care and care for cutaneous leishmaniasis among riverside inhabitants of Nova Olinda do Norte, State of Amazonas, were analyzed according to the principles of Orem's Self-Care Theory <sup>[2]</sup>.

## MATERIALS AND METHODS

This was a qualitative, descriptive study based on Orem's Self-Care Theory <sup>[2]</sup> (as previously mentioned). It was carried out, as stated previously, in the municipality of Nova Olinda do Norte, Amazonas, located 126 km<sup>2</sup> from the capital of Manaus. Currently, Nova Olinda do Norte has a total of 86 riverside communities distributed among the following rivers: Abacaxi (6), Arari (3), Madeira (12), Curupira (26), Paracuni (3), Urariá (32), and Paran do Canum (4).

For the initial sample, 10 persons diagnosed with cutaneous leishmaniasis (CL) were assessed according to data from the Municipal Secretariat of Health of Nova Olinda do Norte and the Information System for Notifiable Diseases (SINAN) from 2012 to 2014. During the 10th interview, one case of CL was identified as already linked to SINAN's report for the triennium studied. Including this person in the sample resulted in 11 participants. Participants were each given a pseudonym (i.e., name of a bird of the Amazon) to preserve their identities. Thus, we reaffirm that the collected data were used only for the proposed research.

We opted for the 2012-2014 triennium given that the records were present in the database of the Municipal Secretariat of Health of Nova Olinda do Norte, which identified participants and their addresses.

Structured interviews were used to carry out the study, and the researcher conducted face-to-face interviews with inhabitants who were selected. The average interview length was 1 hour, and an interview script was used, with one item related to the clinical, spatial, and sociodemographic characterization of the participants and three open-ended related to nursing care and self-care of riverside inhabitants with CL. Sub-questions were recorded with a digital recorder and transcribed in full to a text editor.

Because of the considerable number of communities in Nova Olinda do Norte, the completion of data collection was indicated by the ACL notification file and recorded in the databases of the Municipal Secretariat of Health and SINAN from 2012 to 2014, which led the researcher to the residences of selected individuals, as cases of CL were not concentrated in one area or community.

The data accessed through SINAN and obtained from the structured interviews were cataloged and subsequently inserted into a database for clinical, spatial, and demographic categorization of the participants. A content analysis according to Bardin's perspective <sup>[10]</sup> was performed to organize and analyze the data according to three phases: pre-analysis, material exploration, and data processing inference and interpretation.

The study was submitted to the Research Ethics Committee, Federal University of Amazonas, in accordance with the precepts of Resolution 466/2012 of the National Health Council. Approval was granted with CAAE: 51297815.8.0000.5020.

## RESULTS

To obtain the total sample stipulated for the study, 18 records of Notification of American Cutaneous Leishmaniasis were accessed in cutaneous form from riverside inhabitants; they are registered in the databases of the Municipal Secretariat of Health and SINAN for the period 2012-2014. Of this total, 11 participants were included in this study.

All participants were males aged 20 to 60 years. As to civil status, 6 were single, 1 was married, and 4 were in a stable relationship. Regarding length of residence in the riverside community, 2 participants reported residency for more than 10 years, 7 for more than 20 years, and 2 for more than 30 years.

The results obtained through interviews (aimed at obtaining an understanding of nursing care and self-care practices among riverside inhabitants with ACL using the principles of Orem's theory <sup>[2]</sup>) produced two categories for analysis.

To understand self-care among riverside inhabitants according to Orem's theory <sup>[2]</sup>, we begin by revealing the self-care practices of riverside inhabitants with CL from the perspective of the participants.

## Self-care practices of riverside inhabitants

The self-care practices of rural riverside inhabitants who contracted CL revealed the use of home remedies, as reported below:

- I applied medicine such as astringent bark, used grated tortoise shell, burned and toasted it, then placed it over [...]. (Parrot, 23 years)
- I cleaned several times with water of astringent bark; I also used lemon peel and crushed chili pepper. (Thrush, 28 years)
- I grated Taperebá bark and applied used diesel tree bark; they also taught me to use burned tortoise shell. (Hawk, 26 years)

It was possible to realize that among those interviewed, the first self-care activity was based on natural therapies; furthermore, only two participants mentioned not using any complementary therapies, except those indicated for the disease. Therefore, we believe that the use of popular practices is followed because of the accessibility to health services and cost benefits to the riverside inhabitants.

According to Orem's theory <sup>[2]</sup>, self-care relates to family participation in the care of the individual; further, it is important to discuss that the practices carried out with natural resources used in the treatment of CL were generated by the inhabitants' respective family circles, according to the following narratives:

- I used the criterion of my family; they taught me remedies and said that it was fine. They didn't know it was leishmaniasis. (Parrot, 23 years)
- When I washed with astringent bark, I had the help of my mother. (Thrush, 28 years)
- My uncle likes to take care; he used [a] remedy [that] did not work. (Hawk, 26 years)

As discredited complementary practices not related to self-care of the riverside inhabitants, in addition to cultural knowledge, we mention self-medication, indicated as the second choice among self-care practices to treat CL:

- I used ointment purchased at the pharmacy [...] [and] used an anti-inflammatory, ampicillin, [and] terramycin, which I applied, but it did not solve [the problem]. I used [these] on my own account. (Parrot, 23 years)
- I used benzetacil and benzathine 1200. (Hawk, 26 years)

The reports indicated that both the adoption of recommended complementary therapies, such as self-medication, occurred after the first signs and symptoms of the disease, when the participants were unaware of the CL infection. Adoption of these alternatives, according to those infected, also did not generate any positive effect on lesions.

We sought to identify from the interviewees their healthcare practices for treating CL from the self-care requirements proposed by Orem <sup>[2]</sup>. Among these requirements, we relate three items that are relevant. The first is the requirement for socialization, followed by solitude/isolation and risk prevention. References to socialization during the interviews appeared in two statements; however, it is considered relevant to highlight that the appearance of the disease brings barriers to socialization of the individual. Depending on the place where a lesion occurs, the individual will need rest and experience limitations in terms of daily activities. The following provides details of the deficit in socialization:

- I didn't want to leave the house because I felt sad. (Bellbird, 39 years)
- One day, I no longer had the condition; I was ashamed that my friend went to work and I stayed home. (Hawk, 26 years)

The appearance of lesions in riverside inhabitants can also interfere with certain requirements of self-care, such as solitude/isolation, which we can clearly observe by the following responses:

- I felt like an animal because I had to separate from my family; I did not want to leave the house because I felt sad. (Bellbird, 39 years)
- I felt isolated; we are isolated, we do not have our own the community health worker here. In case of disease, we have no one to count on. (Hawk, 26 years)

The evidence of solitude/isolation disfavors several aspects of self-care of patients affected by CL, negatively influencing recovery and healing and causing social conflicts that affect the daily lives of individuals. Another relevant aspect of health changes includes testimonies of melancholy caused by CL, as follows:

- I felt ashamed; people looked at me differently. I was afraid of not healing. (Cardinal, 20 years)
- I felt a little sad, very sad, because I didn't know what it was; people looked at me when I came to Nova Olinda because they saw my hand tied up in a cloth. People who knew me wondered what it was. (Parrot, 23 years)

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- I was a bit afraid because of the wound. (Jacana, 22 years)

We understand that expressions of melancholy are feelings that cause isolation/loneliness (highlighted previously), which may cause damage to the quality of life and health conditions of riverside inhabitants with CL. With respect to prevention of the disease, testimonials revealed the following self-care actions:

- I protected myself; when I went out, I wore clothes. (Jacana, 22 years)
- I protected myself with a mosquito net. ... Now, I hunt all covered up. (Hawk, 26 years)
- Now, I use sleeved shirts and repellent. (Wren, 47 years)
- So, I use sleeved shirts and boots; when we walk in the middle of the jungle, we cover ourselves. (Curassow, 31 years)

The difficulties exposed by testimonials portray that the search for self-care resources in the riverside reality interferes with the full functionality of the human body. Thus, we aimed to identify the time participants spent looking for treatments and cures for CL, which resulted in the following expressions:

- I spent three to four months finding a hospital. (Bellbird, 39 years)
- I tried after six months and remained one year with the wound. (Parrot, 23 years)
- About fifteen days. (Macaw, 33 years)
- I tried treatment after some three months. (Blue-and-yellow Macaw, 59 years)

We emphasize that the existence of sequelae, limitations, and difficulties are real since the characteristics of lesions and historicity of the disease compromise tissues in the human body.

After understanding the notions of the riverside inhabitants regarding CL, their practices, knowledge, and deviations from health, we began our interpretations about the nursing care provided to participants.

## Nursing care practices

By relating the ethical-professional care of the nurse and the self-care deficit to expressions of the riverside inhabitants affected by CL, we obtained the following statements about the assistance of a professional in treating the disease:

- A nurse prescribed cephalexin, 500 mg, 60 pills every six hours. (Blue-and-yellow Macaw, 59 years)
- The nurse gave me some neomycin to apply on the wound at night. (Curassow, 31 years)

It is noteworthy that different nursing situations are characterized as ethical and iatrogenic infractions (i.e., recklessness, incompetence, and negligence) that lead professionals to have conflicting care relationships (considering Brazilian nursing legislation). We sought to identify the risks and ethical damages of nursing for the interviewees from the experiences of the riverside inhabitants:

- The nurse didn't see, and I immediately took the medicine that the agent brought and did not go through [the] evaluation, only in Manaus later. (Parrot, 23 years)
- No, no, no; the nurse just sent the remedy. (Bellbird, 39 years)

It is understood that the occurrence of fragile or erroneous nursing care for riverside inhabitants with CL reflects visible and undeniable damages according to the therapeutic criteria for the disease. However, professional unpreparedness and turnover in the field must also be taken into account:

- The nurse prepared a bandage. She asked, "Are you diabetic?" (No!) "Do you have someone with diabetes in your family?" (My mother is diabetic.) And she then said, "From now on, avoid sugar; this sweet thing is not for your blood and such." (Okay.) (Curassow, 31 years)

After reviewing the importance of the education support system in the self-care process, we cited nursing as an essential agent for the restoration of health and appreciation of the self-care initiative, given the insertion of nursing, and specifically, of the nurse in the education of people with CL.

- Guided me and gave me a list of medications to control the disease. (Jacana, 22 years)
- I was well-instructed and was told to clean it. (Wren, 47 years)
- The nurse instructed me well. (Tucan, 59 years)

Finally, there was a scarcity of reports concerning nursing care for people residing in riverside rural areas who were affected by CL.

## DISCUSSION

The construction of knowledge is enriched by various understandings; here, we mention riverside knowledge, bearing in mind that popular knowledge is considered knowledge of humble origins acquired through daily experiences on the margins of rivers, lakes, streams, and floods, as well as two representative points—one marked by knowledge passed on from generation to generation and the other linked to man's relationship with nature <sup>[9]</sup>.

Riverine knowledge is recognized as traditional or popular knowledge, transmitted by speech, body gestures, symbols, practices, and myths and representing a regional understanding of the culture and management of natural resources <sup>[11]</sup>.

The use of natural resources includes millennial activities that transcend generations and societies. In contemporary times, the adoption of natural resources is evident in several civilizations, mainly by the use of plants for the treatment of diseases and relief <sup>[12]</sup>.

Healing accomplished through the use of medicinal plants has greater effectiveness in low-income populations and developing countries (around 88%) among populations that do not have access to industrial medicine. Frequently, the only way to treat disease is to use medicinal plants <sup>[13]</sup>.

In the process of care according to Orem <sup>[2]</sup>, family members are essential because they help with care activities and contribute to reduced emotions and therapeutic abandonment <sup>[14]</sup>.

The clinical presentations of CL can be disfiguring, awakening various feelings in patients that directly impact their psychological, social, and financial well-being and certainly interfere with the process of self-care <sup>[3]</sup>.

The requirements of self-care resulting from health changes are recurrent, as in the course of many diseases; self-care actions are aimed at regulating and maintaining the structural and physiological balance of the human being. The needs that emerge with health changes are present in pathological disorders because the limitations, disabilities, submission to diagnostics, and medical treatments arise within this context. Additionally, the needs for care of the sick or injured are clearly visible <sup>[4]</sup>.

A characteristic of health changes is the length of the disease or its maintenance, and its presence leads to the need for effective care of those afflicted with the disease <sup>[15]</sup>.

Approaching the reality that riverside people are familiar with the indicated preventive measures, we consider that some activities carried out by this group correspond to disease prevention actions (e.g., the use of repellents, body protection through the use of clothing, and utilization of mosquito nets) <sup>[4]</sup>.

Nursing is a profession of care, and nurses, nursing technicians, nursing assistants, and midwives are included in this category. In this context, the realization of ethical and legal competencies it is essential for nursing practices, to assure that assisted persons receive expanded care without damages or violations <sup>[16]</sup>.

Nursing practice encompasses a range of skills, including technical and scientific skills relevant to the care of individuals during the course of the disease <sup>[17]</sup>. The nature of care is an initiative of zeal, attention, and care that goes beyond a simple attitude, with the understanding that caring is an act of responsibility, concern, occupation, and emotional exchanges between or toward one another <sup>[18]</sup>.

The relationship between ethical-professional care was taken into account from the standpoint of the self-care deficit, which relates to the therapeutic demands of self-care and the actions performed by people when caring for themselves. The self-care theory is linked to activities aimed at obtaining an understanding of the limitations and conditions of people in the performance of basic tasks <sup>[3]</sup>.

The self-care deficit, evident from the demand, allows us to recognize the requirements for establishment of self-care <sup>[1]</sup>. After the identification of self-care deficits, it is necessary to relate them to nursing systems because we can then identify actions for active care and self-care <sup>[19]</sup>.

## CONCLUSION

The data revealed that the main practice of care for this group is based on the use of natural resources for treatment of the disease, which reminds us of the visible influence of cultural, socioeconomic, and geographic aspects and the affected population's lack of access to health services.

Among the practices and knowledge of people living in a rural area who are affected by CL, we were pleased to know that even with their empirical knowledge and little information from health professionals, many participants were able to establish measures to prevent the disease by wearing appropriate clothing and shoes when entering the jungle. Additionally, they used mosquito nets and repellents.

Regarding health changes and self-care deficits, the data revealed that distance, inaccessibility to health services, incorrect therapies, and financial limitations of the inhabitants were the main reasons for continuation of the disease. Professional iatrogenic

practices emerged in our results as negative points associated with the early cure of CL. Melancholy, solitude, and isolation-all which discourage self-care among riverside inhabitants-also materialized as negatives.

Regarding care from the nurse and nursing technician, riverside inhabitants affected by CL felt that there was little participation from professionals in care given to this group. However, this matter probably relates to the professional unpreparedness of clinical managers to treat the disease; consequently, weaknesses exist in primary care services.

The content analysis indicated a conflicting understanding of the riverside inhabitants regarding the distinction of nursing professionals. Thus, there was an inability to recognize the professional categories of nurse and nursing technician.

Regarding the participation of nurses in the care of persons residing in the riverside area with CL, we observed weaknesses, such as the lack of nursing consultations and inadequate supervision of the professional in everyday activities as a community health agent responsible for situational diagnoses in the area. Given the above, we recommend involving the nursing professional, especially the nurse, in the care of people affected by CL, since the insertion of the professional will allow the formulation of a care/self-care plan ranging from care of the lesion to the strengthening of educational actions of a preventive and curative nature, according to Orem's theory [2].

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## DECLARATION OF CONFLICTING INTERESTS

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