

## ORIGINAL ARTICLE

## SPECIALIZED NURSING TERMINOLOGY FOR PEOPLE WITH VISCERAL LEISHMANIASIS

### HIGHLIGHTS

1. Specialized ICNP® terminology for people with Visceral Leishmaniasis
2. Contribution in the development of care, management and education technologies
3. Standardization of actions and generation of Nursing indicators

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### ABSTRACT

**Objective:** to create specialized Nursing terminology for the care of people with Visceral Leishmaniasis. **Method:** a methodological study carried out in two stages: identification of the relevant concepts in medical records of patients with chosen health priority admitted between 2017 and 2019 to a public and teaching hospital in the north of Minas Gerais, BR; cross-mapping of the concepts identified with the ICNP®. **Results:** a total of 57,797 simple and compound (with repetitions) concepts, were extracted, of which 624 were useful single concepts for the Nursing care to be provided to people with Visceral Leishmaniasis. 281 (45%) primitive concepts were identified as included in ICNP® 2019-2020, as well as 343 (55%) not included in the classification. The concepts related to Focus and Location stood out in the axes. **Conclusions:** a specialized ICNP® terminology was created for the care of people with Visceral Leishmaniasis, with potential impacts on the standardization of actions and on generation of indicators sensitive to the Nursing practice.

**DESCRIPTORS:** Classification; Nursing; Visceral Leishmaniasis; Methodological Research in Nursing; Standardized Nursing Terminology.

### HOW TO REFERENCE THIS ARTICLE:

Araújo DD de, Bernarde TAA, Camisasca LR, Lopes ABM, Corrêa HP, Silva DVA, et al. Specialized nursing terminology for people with visceral leishmaniasis. *Cogitare Enferm.* [Internet]. 2023 [cited in "insert year, month, day"]; 28. Available from: <https://dx.doi.org/10.1590/ce.v28i0.90079>.

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## INTRODUCTION

Visceral Leishmaniasis (VL), caused by intracellular protozoa *Leishmania donovani* and *L. infantum* (*syn L. chagasi*), is an infection with a zoonotic transmission medium, which is initiated when the parasites are deposited on the skin by the sandfly vector<sup>1-2</sup>.

Currently, VL is considered as a neglected tropical disease that can cause nearly 20,000 to 40,000 deaths per year at the global level. In the American continent, VL is present in 12 countries, with 96% of the cases concentrated in Brazil, which reached a lethality rate of 7.4% in 2016. Although manifested in all Brazilian states, the highest detection coefficients are observed in the North region of the country<sup>3-4</sup>. It is noted that the standardized incidence rate by age and the life years lost for VL increased from 52.8% in 1990 to 108% in 2016, being also higher than the rate of years lived with disability<sup>4</sup>.

In Brazil, diagnosis, treatment and care of VL patients are in charge of the Unified Health System, in the Primary Health Care context. However, despite the actions implemented in endemic areas of the country, VL control interventions are still little successful and transmission of the disease progresses. Among the direct costs, approximately 40% correspond to the hospital care expenses, due to hospitalization for treatments with more complex therapeutic regimes<sup>3-5</sup>.

Given the need for care, nurses must implement a clinical practice grounded on scientific evidence, as well as on theoretical and practical knowledge. They should provide individual and collective support, with interventions that alleviate or improve the biological, psychological and social needs of the person, family or collective group.

In this sense, the Nursing Process (NP) is the clinical method of the profession that is employed to systematize the professional practice, even the care provided to VL patients. The NP comprises five inter-related, independent and recurrent stages<sup>6</sup>. It is essential to structure the concepts according to the Nursing scientific determination, thus enabling standardization of the professional language used in the assistance provided to VL patients<sup>7</sup>.

Using specialized Nursing terminology is the main objective of the *International Council of Nurses* (ICN), having been pointed out as an important action to consolidate Nursing as care science and systematization<sup>8</sup>. In this sense, the International Classification for Nursing Practice (ICNP<sup>8</sup>) is highlighted, a classification system that structures the elements of the NP, namely: Nursing diagnoses, results and interventions. According to the World Health Organization (WHO)<sup>9</sup>, VL is considered one of the five priority neglected diseases for eradication, and is still a challenge in the Americas that requires action strategies based on targeted and standardized care<sup>9</sup>.

It is also noted that, at the national and international levels, only one study<sup>10</sup> was found about the Nursing diagnosis profile for people with Leishmaniasis. Thus, a gap is evidenced in the knowledge about specialized Nursing terminology for people with VL.

The objective of the current study is to create specialized Nursing terminology for the care of people with Visceral Leishmaniasis.

## METHOD

A Methodological Nursing research study that followed the recommendations for the development of ICNP<sup>®</sup> terminologies in Brazil<sup>7</sup>, with the following stages: 1) identification of the relevant concepts in the Nursing area for the care of chosen health priority; and 2) cross-mapping of the concepts identified with the primitive concepts from ICNP<sup>®</sup> 2019-2020<sup>11</sup>.

In the first stage, a survey was carried out of the medical records of adult patients admitted between 2017 and 2019 with a VL diagnosis to a public and teaching hospital in the north of Minas Gerais, Brazil. It is emphasized that data collection referred to the 2017-2019 period since, during those years, Scientific Initiation students attending the undergraduate Nursing course were included in the study scenario, all linked to the research project. In addition to that, data saturation was noticed during collection in the period established, thus not impacting the final results despite the two-year time frame.

The hospital's care structure has a Specialty Outpatient Center and a Reference Center for Older Adults' Health Care, in addition to being a reference in Gynecology/Obstetrics care, high-risk pregnant women, victims of dog and cat bites, snakebite accidents, victims of sexual and intrafamily violence, patients in mental distress, Medical Clinic, people with Sexually Transmitted Infections, General Surgery, tuberculosis, otorhinolaryngology, level II trauma, Visceral and Cutaneous Leishmaniasis, clinical treatment in Infectology and Pediatrics. Thus, selection of the hospital is justified because it is a reference for the care of chosen health priority, as the northern region of Minas Gerais is endemic for VL.

The following inclusion criteria were established: medical records of adult patients aged at least 18 years old; with a history of hospitalization in the Medical Clinic of the study hospital between 2017 and 2019 and with a clinical VL diagnosis. The following exclusion criterion was defined: medical charts that failed to provide data of interest for the study (incomplete).

A total of 483 patients were hospitalized with a VL diagnosis in the study hospital between 2017 and 2019. Of these, two medical records did not meet the inclusion criteria because they were from patients hospitalized in the neonatal Intensive Care Unit (ICU), eight in the ICU for adults, 31 in the Emergency room, two in the Surgical Clinic and 294 in the Pediatrics sector. The final sample consisted in 146 medical charts.

In the first stage, the electronic medical charts of all 146 patients were organized by two researchers into individual files in *Word for Windows*<sup>®</sup>, version 2013, leaving only the textual part of the multiprofessional records (nurses, nursing technicians, physicians, nutritionists and physiotherapists), used to extract the concepts. Due to the length of the documents, three different moments were selected between the hospitalization days of each patient, adopting the following strategy: professional records referring to the patient's admission to the Medical Clinic; the median related to the hospitalization days of each patient; and professional records belonging to the last hospitalization day of each patient in the unit. Eventually, there was a total of 430 different moments with professional records.

The files in *Word for Windows*<sup>®</sup>, version 2013, were converted to PDF format and applied to the PORONTO program, a tool that extracts concepts, taxonomic relationships and occurrence frequency<sup>12</sup>.

Afterwards, grammatical gender and verb tense adequacy was carried out, excluding concepts referring to other areas, as well as those considered unconnected to Nursing care for people with VL.

The normalization and standardization process corresponding to the single primitive concepts (without repetitions) was then carried out by two researchers and, in case of divergence, a third researcher was consulted. This considered aspects such as synonyms, known, standardized and commonly used acronyms in Nursing team communication, medical concepts, diseases, medications and drug classes, verb tense, grammatical class, semantic meaning, and grammatical and typing errors<sup>13</sup>.

In the second stage, according to ISO Standard 12300:2016<sup>14</sup>, a *Access for Windows*<sup>®</sup>, version 2013, was used to cross-map the concepts extracted from the medical records with the primitive concepts present in the Model of the Seven Axes from ICNP<sup>®</sup> 2019-2020<sup>11</sup>, comparing them and determining semantic similarity, similitude and consolidation of the specialized terminology<sup>14</sup> in the area of Nursing for people with VL.

The data were added to a *Microsoft Excel 2013*<sup>®</sup> spreadsheet and descriptive analysis was performed (absolute and relative frequency), organized in charts presenting the primitive concepts included, using the corresponding codes taken from the ICNP<sup>®</sup> browser and concepts not included, both in compliance with the seven ICNP<sup>®</sup> axes. The concepts that appeared in the analysis *corpus* at least 50 times were identified, with the aim of evidencing the primitive concepts from the Focus axis, as they generally stand out in frequency and because they determine the fundamental aspects for identifying Nursing diagnoses about the patients' real and/or potential needs<sup>10</sup>.

This study was approved by the Research Ethics Committee of the Montes Claros State University (*Universidade Estadual de Montes Claros, UNIMONTES*) under opinion number: 3,037,406.

## RESULTS

Of all 146 medical charts, 107 (73.3%) were of male patients. The age group varied from 18 to 89 years old, with a mean of 48.29 (SD:  $\pm 17.104$ ). The hospitalization time varied between one and 120 days, with a mean of 16.53 (SD:  $\pm 12.001$ ).

Among the medical charts evaluated, 57,797 simple and compound (with repetitions) concepts were extracted, of which 5,047 were single concepts (with repetitions). Subsequently, the main researcher selected the concepts inherent to Nursing care for the Leishmaniasis health priority, according to the definitions established for each of the seven ICNP<sup>®</sup> axes<sup>8</sup>, remaining 624 single, simple and compound primitive concepts.

The number of appearances of the primitive concepts varied from one to 887 times. Table 1 presents, in decreasing order, the primitive concepts with occurrence frequency in the analysis *corpus* equal to or greater than 50.

**Table 1.** Concepts that appear at least 50 times in the analysis *corpus*. Montes Claros, MG, Brazil, 2021

CONCEPT	n*	CONCEPT	n*	CONCEPT	n*	CONCEPT	n*
Patient	887	Pain	267	Abdomen	135	Bleeding	74
Note	458	Fever	265	Pulse	127	Presence	72
Admission	446	Care	227	Stable	118	Spleen	71
Nurse	432	Hospital	206	Allergy	117	Sleep	70
Hospitalization	415	Place (v)	177	Diet		Free	64
Discharge	97	Medical Evolution	175	Diuresis	95	Rest	64
Physician	373	Air	172	Medication	93	Full	63
Upper	320	Edema	156	Present	90	Preserved	60
Client	296	Age	149	Appetite	88	Weight	59
Complete	296	Incomplete	147	Perfusion	82	Lesion	57
Means	292	Admission Note	146	Asthenia	79	Positive	57
Nursing Technician	287	Teaching Hospital	146	Discolored	78	Eliminations	56

Bed	277	Nursing Technician Admission	144	Physician Admission	76	Left	54
Examination	270	Nurse Discharge	143	Hyporexia	75	Cough	51

\*n: Absolute number.

Source: The authors, 2020.

Of all 624 single primitive concepts, 281 (45%) were identified as included in ICNP® 2019-2020. Predominance was evidenced in the Focus (n=134; 47.70%) and Location (n=54; 19.20%) axes, as presented in Chart 1.

**Chart 1** -Primitive concepts classified as included in ICNP® 2019-2020. Montes Claros, MG, Brazil, 2021

Axis (n*)	Concepts included in ICNP® 2019-2020
Judgment (n=24)	High (10009007), Low (10011438), Completed (10004849), Complexity (10023605), Effective (10014956), Degree (10005663), Started (10018764), Interrupted (10010519), Positive or Negative Judgment (10010981), Mild (10025854), Improved (10026692), Moderate (10025865), None (10013253), Normal (10013295), Partial (10014081), Small (10018315), Impaired (10012938), Prescribed State (10015506), Presence (10046624), Regulating (10016613), Reporting (10016771), Risk (10015007), Size (10018218), Total (10019876)
Focus (n=134)	Adherence (10030298), Aphasia (10002438), Agitation (10002035), Water (10020957), Allergy (10041119), Hallucination (10008635), Anxiety (10002429), Appetite (10002455), Apnoea (10035012), Air (10002061), Arrhythmia (10002536), Ascites (10041946), Self-Care (10017661), Bilirubin (10041443), Bradycardia (10003613), Shiver (10018045), Ability (10000034), Ability to Communicate by Talking (10025039), Characteristic (10004170), Cachexia (10003802), Cataract (10004041), Shock (10018050), Coma (10004629), Complication (10025459), Aggressive Behavior (10002026), Resting Behaviour (10017129), Communication (10004705), Status (10018793), Confusion (10004947), Congestion (10004952), Constipation (10004999), Continuity (10005064), Belief (10003229), Crisis (10005381), Healing (10008707), Discomfort (10023835), Dehydration (10041876), Diabetes (10005876), Diarrhoea (10005933), Dyspepsia (10006442), Dyspnoea (10006461), Pain (10013950), Abdominal Pain (10043948), Oedema (10041951), Elimination (10006720), Epistaxis (10046726), Balance (10003110), Fluid Balance (or Water Balance) (10034114), Rash (10016388), Stigma (10018835), Fatigue (10007717), Fever (10007916), Pulse Rate (10016134), Wound (10021178), Faeces (10007764), Weakness (10024897), Fracture (10008210), Pregnancy (10015421), Blood Glucose (10030832), Hematoma (10008931), Haemorrhaging (10008954), Adequate Hydration (10042342), Self-Hygiene (10017769), Hyperglycaemia (10027521), Hypertension (10009394), Hyperthermia (10009409), Hypocalcaemia (10031473), Hypoglycaemia (10027513), Hypotension (10009534), Mood (10036241), Infection (10010104), Eating (10006517), Insomnia (10010330), Integrity (10010416), Walking (10020886), Memory (10011907), Menstruation (10011976), Urination (10020450), Death (10005560), Need (10012495), Nausea (10012453), Necrosis (10012482), Orientation (10013810), Role (10017321), Child Birth (10004307), Tissue Perfusion (10019745), Weight (10021034), Heartburn (10043280), Pressure (10015608), Procedure (10034409), Itching (10010934), Fall (10007512), Reflex (10016582), Seclusion Management (Control) Regime (10039640), Result (10017186), Rhythm (10017210), Routine (10017384), Noise (10013230), Sanitation (10038033), Bleeding (10003303), Blood (10003319), Blood Oxygen Saturation (10030845), Health (10008711), Drought (10006305), Secretory Substance (10017635), Sedation (10040156), Service (10017908), Sign (10018130), Vital Sign (10020829), Symptom (10019368), Sleep (10041399), Somnolence (10018512), Suspicion (10019310), Tachycardia (10019415), Temperature (10019556), Cough (10005249), Trauma (10020105), Tremor (10020146), Ulcer (10020237), Urine (10020478), Value (10020599), Ventilation (10020704), Dizziness (10006160), Alertness (10002144), Sight (10018124), Vomiting (10020864)

Means (n=31)	Needle (10012509), Food (10008089), Ambulance (10002214), Analgesic (10002279), Antibiotic (10002383), Drink (10006269), Bed (10003168), Catheter (10004087), Surgery (10019212), Surgeon (10019190), Wound Dressing (10021227), Drug (10006314), Physiotherapist (10024003), Diaper (10005914), Haemodialysis (10008949), Insulin (10010400), Medication (10011866), Physician (10014522), Oil (10013662), Oxygen Therapy (10013921), Pulse Oximeter (10032551), Plan (10014630), Patient Record (10014178), Protocol (10015926), Meal (10011809), Syringe (10019399), Solution (10018499), Therapy (10019628), Transplantation (10020053), Tube (10020216), Vitamin (10037028)
Location (n=54)	Abdomen (10000023), Forearm (10008164), Anterior (10002365), Artery (10002562), Joint (10010968), Urinary Bladder (10020360), Bilateral (10027597), Arm (10002504), Head (10008688), Capillary (10003860), Central (10004104), Clinic (10004459), Heart (10008822), Body (10003388), Thigh (10019659), Tooth (10019830), Right (10017234), Distal (10006085), Hospital Ward (10009133), Left (10011267), Structure (10018916), Stomach (10018861), Face (10007481), Flank (10007971), Hospital (10009114), Lower (10011440), Intestine (10010557), Home (10009030), Injury (10010284), Tongue (10019824), Breast (10003650), Nipple (10013224), Hand (10008661), Middle (10012022), Mucous Membrane (10012288), Nose (10013314), Foot (10008155), Skin (10018239), Peripheral (10014386), Leg (10011298), Bridge (10003697), Position (10014788), Posterior (10014994), Proximal (10015942), Lung (10011486), Wrist (10021262), Axillary Region (10003096), Rectum (10016548), Kidney (10022439), Upper (10020325), Thorax (10019692), Trachea (10019922), Urethra (10020339), Vein (10020665)
Action (n=13)	Accompanying (10042609), Counselling (10005254), Feeding (10007786), Altering (10002185), Evaluating (10007066), Collecting (10004574), Putting On Or In (10016201), Demonstrating (10005713), Informing (10010162), Initiating (10010221), Maintaining (10011504), Monitoring (10012154), Teaching (10019502)
Time (n=17)	Admission (10001843), Acute (10001739), Discharge (10006000), Tomorrow (10019811), Continuous (10005086), Chronic (10004395), Duration (10006379), Encounter (10006810), Examination (10007241), Frequency (10008234), Childhood (004348), Intermittent (10010485), Morning (10012226), Night (10013207), Present (10015581), Week (10021010), Visit (10020817)
Client (n=8)	Adult (10001889), Family (10007554), Elder (10006604), Sister (10021653), Brother (10021648), Mother (10027257), Patient (10014132), Father (10027261)

\*n: Absolute number.

Source: The authors, 2020.

Regarding all 343 (55%) primitive concepts not included in ICNP® 2019-2020, the Focus (n=94; 27.40%) and Location (n=82; 23.90%) axes also stood out, as pointed out in Chart 2.

## Chart 2 - Primitive concepts classified as not included in ICNP®2019-2020. Montes Claros, MG, Brazil, 2021

Axis (n*)	Concepts not included in ICNP®
Judgment (n=51)	Abundant, Accentuated, Acidic, Altered, Increased, Absence, Sudden, Full, Difficult, Diminished, Elevated, Hardened, Hollowed out, Darkened, Spontaneous, Stable, Fetid, Flaccid, Globular, Severe, Extremely severe, Inadequate, Ineffective, Nonspecific, Incomplete, Unstable, Intact, Intense, Irregular, Slow, Free, Bad, Minor, Minimal, Modified, Worsened, Precarious, Preserved, Deep, Profuse, Fast, Recessed, Reduced, Responsive, Restricted, Rhythmic, Satisfactory, Serous, Symmetrical, Superficial, Tense

Focus (n=94)	Hypercholesterolemia, Hyperemia, Hyperplasia, Hypersensitivity, Hypoacusia, Hypoalbuminemia, Hypoactive, Hypokalemia, Hypokinesia, Hypocoloration, Hyporexia, Hyporeflexia, Jaundice, Ichthyosis, Immobility, Inappetence, Indisposition, Restlessness, Inspiration, Intoxication, Irritation, Lactulose, Septum lesion, Nodular lesion, Low back pain, Melena, Myalgia, Mydriasis, Neuropathy, Nocturia, Nutrition, Paresthesia, Pollakiuria, Burning, Reflux, Breathing, Verbal Response, Hoarseness, Oral Bleeding, Sensitivity, Sweating, Tachypnea, Varicose Vein, Verbalization, Airways
Means (n=51)	Venous Access, Alcohol, Ambu, Ampoule, Note, Admission Note, Basin, Biopsy, Infusion Pump, Chair, Shower, Enema, Eye Drops, Compress, Debridement, Echocardiogram, Nurse, Nursing Team, Medical Evolution, Bottle, Gas, Gasometry, Grid, Blood concentrate, Blood culture, Hemogram, Blood transfusion, Hydrogel, Injection, Intubation, Fasting, Jelco, Blade, Report, Nebulization, Mineral oil, Lumbar puncture, Medical prescription, Report, Resonance, Clothing, Tube, Nasoenteral Tube, Nasogastric Tube, Admission Summary, Swab, Nursing Technician, Topography, Ultrasonography, Urine Culture, Mechanical Ventilation
Location (n=82)	Below, Above, Village, Alveolar, Outpatient, Anal, Apex, Behind, Spleen, Mouth, Heel, Intensive Care Center, Medical Clinic, Spine, Cutaneous, Decubitus, Home, Back, Sclera, Sphincter, Esophagus, Pharmacy, Femur, Liver, Fossa, Frontal, Throat, Gastrointestinal, Gluteus, Hemiclavicular, Hemithorax, Hemocenter, Hypochondrium, Teaching Hospital, Knee, Jugular, Internal Jugular, Laboratory, Lagoon, Lateral, Bed, Axillary Lymph Node, Medium, Marrow, Muscular, Mortuary, Occipital, Ocular, Oral, Oropharynx, Orotracheal, Ear, Palmar, Calf, Patellar, Plantar, Prison (Chain), Pupil, Bedroom, Cervical Region, Lumbar Region, Maleolar Region, Residence, Retina, Retroauricular, Sacral, Saphenous, Room, Emergency Room, Nasal Septum, Submandibular, Supraclavicular, Tibia, Thyroid, Umbilical, Vaginal, Vascular, Ventral, Ventricular, Vesicointestinal, Gallbladder, Visceral
Action (n=37)	Measuring, Asserting, Waiting, Presenting, Signing, Associating, Drinking, Seeking, Characterizing, Placing, Confirming, Considering, Containing, Talking, Diluting, Clarifying, Specifying, Estimating, Staying, Providing, Infusing, Investigating, Going, Denying, Searching, Quantifying, Accomplishing, Receiving, Reducing, Repeating, Removing, Returning, Leaving, Feeling, Requesting, Suggesting, Tolerating
Time (n=16)	Nursing Technician Admission, Physician Admission, Nurse Discharge, Bed Round, Daytime, Sunday, Sporadic, Age, Immediate, Hospitalization, Dinner, Early Morning, Monthly, Fortnightly, Saturday, Evening
Client (n=12)	Companion, Client, Brother-in-law, Intern, Student, Son, Grandson, Cousin, Professor, User, Neighbor

\*n: Absolute number.

Source: The authors, 2020.

## DISCUSSION

As a still uncontrolled public health problem in Brazil and in the world, VL requires attention regarding actions and services and, essentially, in terms of its direct care<sup>9</sup>. Nursing care stands out, which, based on a standardized language, can universalize its actions to combat and control this condition, contributing to the clinical Nursing practice and care management.

From the cross-mapping process of the primitive concepts, a considerable number of concepts not included in the ICNP<sup>®</sup> was evidenced, which shows the need to standardize the language, even more so when it comes to documentary evidence of the clinical practice. The cross-mapping process aims at recognizing the similarities and differences in the language used, with the potential to standardize and add new aspects related to that language, with a view to universalizing it<sup>11,14</sup>.

The identification and analysis of the terms not included indicates the need to incorporate new terms into the ICNP<sup>®</sup>. Considering that this terminology is configured as

a classification system that can be employed worldwide, the importance of the constant updating process is highlighted, with potential impacts on Nursing professionals' practice, on the communication between them and other professionals in the health area, in the Systematization of Nursing Care and in scientific Nursing research<sup>15</sup>.

It is also noted that most of these concepts are inherent to the practice focus. Even without employing a classification system, it was possible to verify that, in the care practice, nurses use a language specific to the profession when caring for patients with VL, given the repetition of concepts in the documents examined in the current study. In addition, a database of standardized terms contributes to better recording the care provided and, consequently, to improving the Nursing practice, consolidating care and covering the particularities of this population group<sup>16</sup>.

The Focus axis is understood as the relevant care area for Nursing<sup>11</sup>. It is grounded on the first stage of the Nursing Process, Nursing data collection (Nursing history)<sup>17</sup>.

Primitive concepts included in the ICNP<sup>®</sup> were identified. In addition to that, the Focus axis concepts with high appearance frequency in the analysis *corpus*, such as: "elimination", "pain", "fever" and "edema".

The "Elimination" primitive concept refers to constipation in VL patients. This problem can also cause abdominal distension, pain, flatulence and "vomiting", this latter also mentioned as a primitive concept in the findings of the current study.

The "pain" primitive concept is defined as "Perception, impaired: Increased unpleasant sensation in the body; subjective report of distress, facial expression of pain, change in muscle tone, self-protective behavior, reduced attention focus, change in perception time, withdrawal from social contact, impaired thought process, distracted behavior, restlessness and loss of appetite"<sup>11</sup>.

Pain is generally related to the VL classic symptomatology itself, such as hepatosplenomegaly and abdominal distension<sup>18</sup>, which generate physical discomfort. As well as drug treatment, in which some medications may have adverse effects such as abdominal or low back pain at the application site, headache, arthralgia and myalgia<sup>19</sup>. In this sense, Nursing should pay special attention to pain, as it exerts negative effects on human physical and mental health, affecting the patients' quality of life<sup>20</sup>.

It is emphasized that, in the current study, "hepatosplenomegaly", headache, arthralgia, myalgia and spleen were primitive concepts from the Focus and Location axes, respectively, classified as not included in the ICNP<sup>®</sup>. In an endemic area, any clinical condition that presents with febrile hepatosplenomegaly should be investigated as a suspected case of the disease<sup>21</sup>.

The "fever" primitive concept refers to a defensive body response against pyrogenic agents due to an inflammatory reaction. Mediators such as interleukin-1B and interleukin-6 are released, resulting in an increase in the immune response and consequent protection of the human body against infectious agents<sup>22</sup>, such as those that cause VL. A number of studies<sup>18,21,23</sup> evidenced that this is the most frequent manifestation in VL patients, with prevalence values from 92.6% to 96.1%.

In VL, fever can be characterized as irregular and long-term<sup>21</sup>. Interventions for "fever" must be implemented with the intention of reducing body temperature and should be based on scientific evidence. It is fundamental that Nursing professionals know the adverse effects both of antipyretic agents and of physical fever control methods<sup>22</sup>.

"Edema" is a condition that develops with disease progression and is a marking event in the life of these patients. The primitive concept is defined as "Retention of Liquids"<sup>11</sup>. A number of studies<sup>24-26</sup> point out that it is a strong predictor of mortality. The presence of edema may reflect protein malnutrition and liver or kidney failure, being described as a risk

factor for an unfavorable outcome (relapses and death)<sup>25</sup>, as well as directly reflecting on the patient's "weight", being a primitive concept identified in the study, and which should be routinely monitored.

In 2006, Ordinance No. 05 of February 21<sup>st</sup>, 2006<sup>5</sup> was issued with the aim of improving the Visceral Leishmaniasis Surveillance and Control Program (*Programa de Vigilância e Controle da Leishmaniose Visceral, PVCLV*) through the development and application of educational and preventive measures, which can be demonstrated based on primitive concepts related to the Action axis, such as "counselling" and "informing", to the Focus axis, such as "diet" and "medication", and to the Client axis: "family", "brother" and "sister". Such aspects referred to in the present primitive concepts involve the joint construction of knowledge necessary for monitoring and treating patients with VL, who, for living with a chronic disease, need autonomy in their care process, as well as help from the family support network<sup>5</sup>.

As in the current study, other surveys<sup>14,27-28</sup> of specialized Nursing terminologies identified, with greater prevalence, that the primitive concepts belonging to the Focus axis are related to biological needs, reinforcing care based on the biomedical model. In this perspective, it is noted that, in addition to the biological issues, Nursing care must encompass psychosocial and spiritual aspects of the person, considering broad and comprehensive assistance.

Using a specialized terminology allows detecting concepts that assist in creating Nursing diagnoses, results and interventions, enabling the identification of the main needs according to health priorities. This recognition of the primitive concepts requires critical thinking skills and competencies from nurses to achieve positive results<sup>10,29</sup>, contributing in the future to the development of ICNP<sup>®</sup> Terminology Subsets, as an ICN recommendation in the consolidation of Nursing science and work<sup>8</sup>.

Regarding limitations, differently from the literature, the concepts included in the ICNP<sup>®</sup> were not the most frequent in this research. However, for having been conducted in medical charts, the study can more accurately reflect the particularities of Nursing care directed to people with VL. It is also noted that, due to the extension of all the information, a strategy to select the professional records at three different Nursing care moments was adopted.

## CONCLUSION

It was possible to achieve the objective of the study by creating a specialized ICNP<sup>®</sup> terminology for the care of people with VL, in which 55% of the concepts are not included in the 2019-2020 version of the classification, with a higher number of primitive concepts classified in the Focus and Location axes.

It is evidenced that, even not employing any classification system in the clinical practice, nurses use language specific to the profession when caring for VL patients especially. A specialized Nursing terminology can contribute to the development of care, management and education technologies, such as structuring an ICNP<sup>®</sup> terminology subset with impacts on the standardization of actions, generation of Nursing indicators for the care of people with VL, on care quality, and on the visibility and consolidation of Nursing as a science. It is recommended to carry out studies to create an ICNP<sup>®</sup> terminology subset containing Nursing diagnoses, results and interventions for the Nursing care to be provided to people with VL.

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**Received:** 20/12/2021

**Approved:** 18/11/2022

**Associate editor:** Dra. Luciana Nogueira

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ISSN 2176-9133



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