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REVIEW

POST-DISCHARGE HEALTH IMPAIRMENT OF PATIENTS TREATED FOR LEPROSY AND RELATED FACTORS: SCOPE REVIEW

COMPROMETIMENTO DA SAÚDE NO PÓS-ALTA DE PACIENTES TRATADOS POR HANSENÍASE E FATORES RELACIONADOS: REVISÃO DE ESCOPO

DETERIORO DE LA SALUD TRAS EL ALTA EN PACIENTES TRATADOS POR LEPRA Y FACTORES RELACIONADOS: UNA REVISIÓN GENERAL

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ABSTRACT

Objective*: to map evidence in the scientific literature on the post-discharge health impairment of patients treated for leprosy and related factors.* **Materials and Method***: scope review carried out from the CINAHL, LILACS, MEDLINE, PUBMED, SCOPUS and Web of Science databases in March 2021, guided by the mnemonic strategy that helps to identify the Problem, Concept and Context proposed by the Joanna Institute Briggs, systematized through the PRISMA-ScR flowchart, and registered in the Open Science Framework (osf.io/vmdc6). Studies on the subject published until February 2021 in the national and international scenario were included.* **Results***: of the ten articles included in the final sample, nine showed some degree of functional impairment, demonstrating weaknesses in follow-up from diagnosis to the post-discharge period.* **Conclusions***: there is evidence of more frequent involvement, especially of a physical nature, which directly impact the functionality of these people's daily and social activities. Weaknesses in post-discharge monitoring were related to the lack of trained professionals, lack of knowledge of assessment techniques and classification of the degree of disability, lack of health education provision, difficulty in accessing health services, delay in treatment of reactional episodes and biopsychosocial rehabilitation and the absence of systematization of care.*

Keywords: *Disabled Persons; Leprosy; Rehabilitation Nursing; Quality of Life; Systematic Review.*

RESUMO

Objetivo*: mapear evidências na literatura científica sobre o comprometimento de saúde no pós-alta de pacientes tratados por Hanseníase e fatores relacionados.* **Materiais e Método***: revisão de escopo realizada a partir das bases de dados CINAHL, LILACS, MEDLINE, PUBMED, SCOPUS e Web of Science em março de 2021, norteados pela estratégia mnemônica que auxilia na identificação do Problema, Conceito e Contexto propostos pelo Instituto Joanna Briggs, sistematizados por meio do fluxograma PRISMA-ScR e registrados na Open Science Framework (osf.io/vmdc6). Foram incluídos estudos sobre a temática publicados até fevereiro de 2021 no cenário nacional e internacional.* **Resultados***: dos dez artigos incluídos na amostra final, nove evidenciaram algum grau de comprometimento funcional, demonstrando fragilidades no acompanhamento desde o diagnóstico até o período pós-alta.* **Conclusões***: evidencia-se acometimentos com maior frequência sobretudo de ordem física, que impactam diretamente a funcionalidade nas atividades de vida diária e social dessas pessoas. As fragilidades no monitoramento pós-alta foram relacionadas ao déficit de profissionais capacitados, ao desconhecimento de técnicas de avaliação e classificação do grau de incapacidade, à carência na oferta de educação em saúde, à dificuldade de acesso aos serviços de saúde, ao atraso no tratamento dos episódios reacionais e reabilitação biopsicossocial e à ausência da sistematização do cuidado.*

Palavras-chave: *Pessoas com Deficiência; Hanseníase; Enfermagem em Reabilitação; Qualidade de Vida; Revisão Sistemática.*

RESUMEN

Objetivo: *mapear en la literatura científica las evidencias sobre el deterioro de la salud post-alta en pacientes tratados por lepra y factores relacionados.* ***Materiales y Métodos:*** *revisión de alcance realizada a partir de las bases de datos CINAHL, LILACS, MEDLINE, PUBMED, SCOPUS y Web of Science en marzo de 2021, guiada por la estrategia mnemotécnica que ayuda a identificar el Problema, Concepto y Contexto propuesta por el Instituto Joanna Briggs, sistematizada a través del flujograma PRISMA-ScR y registrada en el Open Science Framework (osf.io/vmdc6). Fueron incluidos estudios sobre el tema, publicados hasta febrero de 2021, en el escenario nacional e internacional.* ***Resultados****: de los diez artículos incluidos en la muestra final, nueve mostraron algún grado de deterioro funcional, demostrando debilidades en el seguimiento desde el diagnóstico hasta el período posterior al alta.* ***Conclusiones****: se evidencia con mayor frecuencia ataques sobre todo de orden físico que impactan directamente en la funcionalidad en las actividades de la vida diaria y social de las personas. Fragilidades en el seguimiento postoperatorio relacionadas con el déficit de profesionales capacitados, el desconocimiento de las técnicas de evaluación y clasificación del grado de incapacidad, la carencia en la oferta de educación en salud, la dificultad de acceso a los servicios de salud, el retraso en el tratamiento de los episodios reaccionarios y la rehabilitación biopsicosocial y la ausencia de sistematización del cuidado.*

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Palabras clave: *Personas con Discapacidad; Lepra; Enfermería en Rehabilitación; Calidad de Vida; Revisión Sistemática.*

INTRODUCTION

Leprosy is a chronic infectious disease whose etiologic agent is *Mycobacterium leprae*, a bacillus that mainly affects the peripheral nerves, eyes, and skin, manifests itself with a slow and progressive evolution and can cause deformities and physical disabilities, often irreversible. In Brazil, leprosy remains an important public health problem, given the high disabling potential associated with the high burden of social stigma, placing the country in an unpleasant position as the second in number of cases registered in the world(1).

The epidemiological situation of leprosy in the face of the global pandemic scenario, in which emergency public health strategies were aimed at combating COVID-19 (Coronavirus Desease-19), was directly influenced by the impact of low case detection, including in Brazil. While in 2019, 27,864 new cases were registered across the country, in 2021, according to preliminary data, only 15,155 new cases were reported in the Notifiable Diseases Information System (SINAN). Of note were the 1,412 cases that had grade II physical disability already installed, a worrying fact that shows a late diagnosis of the disease and reflects the low effectiveness of health services in early detection of cases(2).

The World Health Organization (WHO), despite the challenges posed by the COVID-19 pandemic, has made efforts to periodically launch global strategies in the fight against leprosy. Recently, a strategy named "Towards zero Leprosy 2021-2030", which seeks, through the implementation of scripts with an emphasis on endemic countries, to strengthen actions to interrupt transmission and eliminate the disease, expand prevention activities through active search, controlling the disease and complications due to disabilities and combating stigma, ensuring that human rights are respected(3). Understanding the factors related to the estimation and temporal trend of leprosy, especially in endemic countries, allows assessing its impact or aggravation on the health status of the population, with the perspective of assisting in the elaboration of public policies for control and monitoring(4).

Currently, the number of cases that are discharged from services due to a cure for some installed physical disability is expressive, demonstrating weaknesses in diagnostic actions, prevention of disabilities, promotion of self-care and detection of leprosy reactions and neuritis, which are special clinical conditions and not rare in leprosy. Targeted actions could prevent the worsening and installation of new deformities, especially after discharge. It should be noted that, even in this condition, the presence of disability or physical deformity suggests that the person remains inserted and accompanied by specialized care to ensure the longitudinality and comprehensiveness of care(5,6).

The Degree of Physical Disability (DPD) is an important indicator of late diagnosis and post-discharge follow-up, as it highlights aspects related to manifestations such as loss of sensitivity, decreased muscle strength and/or appearance of visible deformities in the eyes, hands, and feet. They are categorized into three levels: grade 0, when there is no neural impairment; grade I, which indicates decrease, alteration, or loss in sensitivity; and grade II, with disabilities and deformities already installed, which highlights the need for multidisciplinary follow-up at different levels of care. It is recommended to carry out a thorough evaluation at diagnosis, during treatment and at discharge due to cure(7,8).

According to the criteria established by the WHO, people who regularly follow the multidrug therapy (MDT) treatment scheme are considered cured, regardless of the operational classification, with a treatment duration of 6 to 9 months in Paucibacillary (PB) cases and from 12 to 18 months. months for Multibacillary (MB)(9).

Although it has treatment and cure, there is a possibility of relapse and the appearance of leprosy reactions, responsible for the development of sequelae after medication discharge. Therefore, the concept of "leprosy discharge" goes beyond the clinical perspective focused on this perspective. Most of the time, the user who completed the treatment remains with an active record in the reference health service, with follow-up due to acquired physical disabilities, due to presenting leprosy or immunological reaction inherent to the condition(10).

Among the national and international literature, there is a high prevalence of physical, psychological, social, and economic disabilities that, in general, are associated with variants such as the type of operational classification treated, age, gender, level of education, delay in diagnosis and limited access to health services(11-14).

Therefore, carrying out a review study on the subject is justified by the need to know scientific evidence about possible impairments in individuals after discharge from leprosy. After all, it is known that the high disabling power can leave physical and emotional consequences, most often resulting in social exclusion. In view of the relevance of the subject in public health, when considering the protagonism of the care attributed to the Nursing team as an essential element in the process of promoting health and preventing disabilities, especially in those who have left leprosy treatment, it is essential to deepen such knowledge to support actions and minimize the risks inherent to this condition.

Considering this reality, it is imperative to search the literature on the subject, with the purpose of exposing what has been investigated and pointing out possible gaps in the knowledge needed to support therapeutic decisions and the monitoring of post-discharge cases of leprosy. Hence, the present study aims to map evidence in the scientific literature on the impairment of health in the post-discharge of patients undergoing treatment for leprosy and related factors.

METHODOLOGY

To carry out the study, a scoping review was chosen, which aims to map the literature in each field of interest, address evidence about the clinical practice of an area of knowledge and identify gaps in the evidence investigated through a broad view of a subject(15).

From this perspective, the methodological steps of the review followed the structure proposed by the Joanna Briggs Institute, which consists of identifying the question and research objective; identification of relevant studies that enable the scope of the purposes of the review; study selection according to predefined criteria; data mapping; characterization of the results through a qualitative analysis in relation to the objective and question; and presentation of the results, identifying the implications for the research(16). It was registered in the Open Science Framework (OSF) (osf.io/vmdc6), an online tool that promotes workflows for researchers, increasing the transparency, integrity, and reproducibility of scientific research.

To define the question and the objective, the mnemonic strategy was applied, which helps to identify the key topics: Problem (what one intends to investigate), Concept (basic concept to be investigated in the review) and Context (specific aspects about a certain theme) - PCC to guide the scope review. Therefore, the listed Problem refers to people in post-discharge situation due to leprosy cure; the Concept encompassed possible impairments of people after discharge from leprosy and the factors related to these conditions; and the Context comprised studies published on the national and international scene in scientific databases in the health area on the object of study(15).

Reconciling the PCC key topics with the objective of the study, the research question was: What findings in the literature show the compromised health of people after discharge from leprosy and the factors related to these conditions?

The identification of relevant studies, which enable the scope of the purposes of the review, initially took place through the definition of Descriptors in Health Sciences (DeCS)/Medical Subject Headings (MeSH) “disabled persons” “leprosy” and “patient discharge”. They constituted the research in a related and organized way by adding the Boolean operator AND and through an advanced search in the Journal Portal of the Coordination for the Improvement of Higher Education - CAPES, accessed by the Federated Academic Community - CAFe, and in the Cumulative Index databases to Nursing and Allied Health Literature (CINAHL), Latin American and Caribbean Literature in Health Science (LILACS), Medical Literature Analysis and Retrieval System Online (MEDLINE), National Library of Medicine (PUBMED), SCOPUS and Web of science, in March 2021, according to the search strategy shown in Table 1. The objective was to select the published articles that address the theme and point out gaps that need to be filled through new studies, allowing conclusions through critical analysis

For the selection of empirical material, the following inclusion criteria were aligned: studies that addressed the intended theme published until February 2021 in the national and international scenario. Exclusion criteria were duplicity and unavailability of publication in full text.

The selection process of studies according to the pre-defined inclusion criteria was systematized using the PRISMA-ScR methodology (Key Items for Reporting Systematic Reviews and Meta-analyses for Scope Reviews), according to identification, selection or screening criteria, eligibility, and articles included(17).

The identification of articles in the databases was carried out by a researcher, extracting a quantity of 209 studies. Then, filters were applied to verify the criteria proposed for the review, totaling 35 studies. The titles and abstracts were read by two researchers to verify their relevance to the proposed objective, composing a sample of 18 articles. This amount was reviewed by both researchers after reading the texts in full, independently, to analyze their adequacy to the research question. Therefore, the research corpus consisted of 10 studies. The results by selection stage are shown in Figure 1, according to the PRISMA-ScR extension for Scoping Reviews model(17).

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The data mapping stage was guided by a structured script prepared by the authors to collect data about the journals (name, year and area of expertise) and related to publications, such as article title, authors and respective professions, country of conduction of the study, language, objectives, approach, type of design, level of evidence of the studies, population and sample size, sociodemographic variables and most prevalent clinical data, results and conclusions. The objective is to highlight the main evidence related to the limitations and disabilities identified in people after leprosy discharge. This instrument allowed the authors to summarize and interpret the results based on a qualitative analysis with regard to the review and the proposed objective(18).

The results were presented by communicating the findings extracted from the studies selected for review, providing an overview of the analyzed material, with main approaches that would allow for the synthesis and discussion of the results achieved. As this is a study using information in the public domain, carried out through a review of the scientific literature, approval by the Research Ethics Committee was not required.

Table 1 - Advanced search strategy in databases. *João Pessoa*, *Paraíba*, Brazil, 2021

Database	Search Strategy
CINAHL	*disabled persons* (field not selected) AND *leprosy* (field not selected) AND *patient discharge* (field not selected)
LILACS	*disabled persons* (words) AND *leprosy* (words) AND *patient discharge* (words)
MEDLINE	*disabled persons* (text in full) AND *leprosy* (text in full) AND *patient discharge* (text in full)
PUBMED	disabled persons (all fields) AND leprosy (all fields) AND patient discharge (all fields)
SCOPUS	*disabled persons* (field not selected) AND *leprosy* (field not selected) AND *patient discharge* (field not selected)
WEB OF SCIENCE	TS = (*disabled persons* AND leprosy AND *patient discharge*)

Source: Research data, 2021.

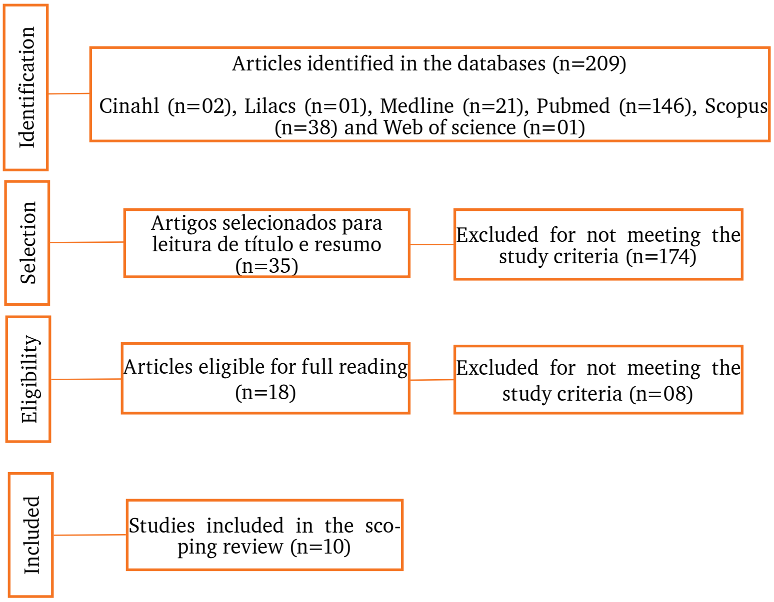

Figure 1 - Flowchart of article selection and composition of the scope review corpus according to the PRISMA-ScR model
Source: Research data, 2021.

RESULTS

Initially, 209 articles were identified, indexed in the CINAHL (02), LILACS (01), MEDLINE (21), PUBMED (146), SCOPUS (38) and Web of Science (01) databases. Of these, 174 were eliminated after using filters following the criteria proposed for the selection of studies. Thirty-five studies were selected for title and abstract reading, of which 18 met the eligibility criteria for reading in full, being submitted to evaluation and preliminary analysis. Thus, 08 studies were excluded for not contemplating the object of study and 10 articles totaled the final sample of this review.

About the distribution of journals by country, we identified a homogeneity of publications from only two countries, Brazil and Nigeria, with nine (90%) and one (10%) studies carried out, respectively, since these countries have a high prevalence of leprosy19. As for the language of the journals, six (60%) were published in English and four (40%) in Portuguese.

Regarding the professional area by scientific production, five studies (50%) belong to the Tropical Medicine area of knowledge, while three (30%) are from the Public Health area, one (10%) from Dermatology and one (10%) of Nursing. When analyzing the composition of the authors' professions, it appears that all scientific productions (100%) were carried out by members of the multidisciplinary team. Medicine was the most present category, contributing to nine studies (90%), with collaboration from the areas of Nursing, Biology, Physiotherapy, Social Assistance, Pharmacy, Animal Science and Statistics. Regarding the methodological approach, eight (80%) are quantitative studies and two (20%) used a mixed method approach, that is, quantitative and qualitative. Regarding temporality, eight (80%) are cross-sectional studies and two (20%) are longitudinal.

With regard to the sociodemographic characterization of the participants of the analyzed studies, age and sex were evidenced in all articles (100%), in five (50%) education, in four (40%) the profession, in three (30%) the race and only one (10%) mentioned marital status. Of these, there was variation between 40 and 59 years of age of the participants, demonstrating to affect people of working age, and the male gender was predominant in eight (80%) studies. The low level of education of the participants was evident, since incomplete primary education was the highest level of education reported by the authors in five (50%) studies. The professions mentioned were seller, service provider and farmer. The white race was cited in two (20%) studies and the brown race in one (10%). Married marital status was the only one mentioned.

Among the clinical aspects, the classification of the operational form Multibacillary (MB) was cited in three (30%) articles, standing out as more conducive to the development of limitations, disabilities, and deformities. As for the impairment of the health of patients in the post-discharge condition of leprosy, nine studies (90%) pointed to a higher prevalence of physical involvement, mentioning the feet, hands and eyes as the most affected structures, respectively; impairment of conditions associated with carrying out activities of daily living; neuropathies possibly associated with late diagnosis; presence of the reactional state of the disease; and DPD worsening between discharge and post-discharge.

Yet, one study (10%) pointed out the fact that the participants had low awareness of the risk of evolution, with the worsening of the DPD, and important deformities in the structures of the feet, hands and eyes were highlighted in five publications (50%). Impairment of conditions associated with carrying out activities of daily life appeared as the most cited aspect in 30% of the studies (n=3). Peripheral nerve involvement was evidenced in 30% of publications (n=3), warning that irreversible neuropathies in treated people can cause, in addition to physical problems, other emotional, social, and economic problems. Only 20% of the articles (n=2) mentioned the presence of a reactive state in the post-discharge period. In 30% of the studies (n=3), an association of DPD worsening in bacteriologically cured individuals over time was evident.

In 30% of the studies (n=3), the restriction in the participation and social interaction of patients affected by leprosy in the post-discharge condition was highlighted, due to the social stigmatization that has directly affected the demand for and access to health services. Consequently, 30% of the studies (n=3) demonstrated impairment of aspects related to the participants' quality of life.

Regarding the factors related to the main findings, there is a lack of some aspects regarding the monitoring of post-discharge cases, among them the deficit of trained professionals, including lack of knowledge of assessment techniques and classification of the degree of disability, generating follow-up inadequate post-discharge. This demonstrates the failure of longitudinal care; the lack of promotion of health education, with actions that prioritize early diagnostic screening and disability prevention; the difficulty of accessing health services, caused by the users' unfavorable environmental and socioeconomic conditions; delay in the treatment of reactional episodes and biopsychosocial rehabilitation; and the absence of protocols and instruments to systematize and monitor care. These approaches must be reassessed on an emergency basis, with a view to strengthening health care networks.

In view of the above, we draw attention to a fact that is frequently discussed in the studies that made up this review, which is the appreciable absence of interventional research that demonstrates the effectiveness and cost-effectiveness of actions taken to alleviate undesirable events in the post-discharge of leprosy.

Table 2 - Characterization of studies according to authors, year, article title, methodological design, level of evidence, objective, main findings, and related factors in patients treated for leprosy. *João Pessoa*, *Paraíba*, Brazil, 2021 (n=10)

Authors Article title	Methodological design Scientific level of evidency	Study objectives	Main findings	Factors related to the main findings
Silva Sobrinho RA, Mathias TAF, Gomes EA, Lincoln PB[22] Assessment of the degree of disability in leprosy: a strategy to sensitize the Nursing team.	Observational study 2c – Degree of recommendation B	To assess the degree of disability in enrolled or discharged people residing in municipalities of the 14th Health Region of Paraná.	Most of the assessed population had some degree of disability (I and II); part of the professionals was unaware of the technique for assessing and classifying the degree of disability.	Deficit of trained professionals, especially in primary care, where there is a high turnover of human resources; lack of health education offering with emphasis on early diagnosis and self-care prevention; lack of treatment in a timely manner, associated with the continuous search for new cases; and devaluation of teamwork, including in social segments.
Enwereji EE, Ahuizi ER, Iheanocho OC, Enwereji KO[24] Medical Rehabilitation of Leprosy Patients Discharged Home in Abia and Ebonyi States of Nigeria.	Cohort study 2b - Degree of recommendation B	To examine the availability of health programs for discharged leprosy patients in communities.	Most patients live in crowded areas without post-discharge follow-up, without access to health programs and without monitoring regarding the rehabilitation of cases due to problems associated with the stigmatization of the disease.	Poor environmental conditions in the community; lack of monitoring in health services; and lack of health education, especially with a focus on prevention and rehabilitation of post-discharge cases
Monteiro LD, Alencar CHM, Barbosa JC, Braga KP, Castro MD, Heukelbach J[12] Incapacidades físicas em pessoas acometidas pela hanseníase no período pós-alta da poliquimioterapia em um município no Norte do Brasil.	Cohort study 2b - Degree of recommendation B	To estimate the prevalence of individuals with physical disability after discharge from multidrug therapy for leprosy in Araguaína, Tocantins, Brazil.	Prevalence of physical disabilities due to inadequate clinical follow-up after leaving the active registry; association between disabilities, multibacillary cases and reactional episodes; greater occurrence of deformities in men; 25% worsening of the degree of disability after discharge; and most affected structures: feet, hands, and eyes respectively.	Disqualified care network; inadequate monitoring of cases; lack of standardized protocols that guide the classification and management of reactional episodes; discontinuity of assistance after deletion of the active record; longitudinal impairment of care.
Sales AM, Campos DP, Hacker MA, Nery JAC, Düppre NC, Rangel E, Sarno EN, Penna MLF[23] Progression of leprosy disability after discharge: is multidrug therapy enough?	Cohort study 2b - Degree of recommendation B	To assess the risk factors related to the worsening of physical disabilities after the end of therapy in patients treated with 12 doses of multidrug therapy (MDT/WHO).	Worsening of disability after discharge; difficulty for health professionals to diagnose neuritis; and gradual worsening of sequelae between 5 and 10 years of treatment.	*Deficit in screening for early diagnosis and immediate treatment of reactional episodes as a means of preventing physical disabilities.*
Castro LE, Cunha AJA, Fontana AP, Halfoun VLRB, Gomes MK11 Physical disability and social participation in patients affected by leprosy after discontinuation of multidrug therapy.	Cohort study 2b - Degree of recommendation B	To describe the general frequency of physical disability and social participation in people affected by leprosy after the discharge period (MDT/WHO) and factors associated with these variables.	Prevalence of some degree of physical disability, with emphasis on DPD I, and post-discharge social restrictions; multibacillary clinical form as a risk factor for the development of leprosy reactions; delay in the diagnosis of leprosy or inadequate follow-up of the patient after discharge.	Inadequate monitoring of the patient and worsening of physical disabilities after discharge; suggests training the health team to monitor these patients during this period.

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Table 2 - Characterization of studies according to authors, year, article title, methodological design, level of evidence, objective, main findings, and related factors in patients treated for leprosy. *João Pessoa*, *Paraíba*, Brazil, 2021 (n=10)

Authors Article title	Methodological design Scientific level of evidency	Study objectives	Main findings	Factors related to the main findings
Monteiro LD, Alencar CH, Barbosa JC, Novaes CCBS, Silva RCP, Heukelbach J[13] Post-leprosy discharge: limitation of activity and social participation in a hyperendemic area in northern Brazil.	Cohort study 2b - Degree of recommendation B	To characterize the limitation of activity and social participation and its correlation with disabilities and/or disabilities in people after discharge from multidrug therapy for leprosy in the municipality of Araguaína, Tocantins.	They presented moderate to very severe functional and activity/social participation limitations in the post-discharge period; participants' low perception of risk; association of activity limitation with older age and the degree of functional limitation; statistically significant correlation of social participation with functional limitation.	It reinforces the need to apply instruments that assess possible impairments in physical, psychological, and social aspects, in order to prevent disabilities and promote biopsychosocial rehabilitation after discharge from leprosy, guaranteeing comprehensive care.
Neves TV, Souza EB, Valentim IM, Reis IB, Diniz APM, Rocha ESD, Nobre MSRS, Castro JGD[7] Degree of physical disability and eyes-hands-feet score in post-discharge leprosy patients.	Cohort study 2b - Degree of recommendation B	Perform a simplified neurological assessment of patients who have already completed multidrug therapy and, based on the data, compare the results by analyzing them from the perspective of assessing the degree of disability and the Eye, Hand, and Foot Score (EHF).	The feet were the region most affected by disabilities; the low percentage of patients with Grade II shows that multidrug therapy was effective; the degree of disability is useful for operational considerations of an epidemiological nature. The EHF score allows for a more sensitive assessment of the evolution of the patient's functional and/or sensory changes.	Failure to provide guidance on self-care added to the constant monitoring and reassessment of post-discharge patients.
Queirós MI, Ramos JRAN, Alencar CHM, Monteiro LD, Sena AL, Barbosa JC[14] Clinical and epidemiological profile of leprosy patients attended at Ceará, 2007-2011.	Systematic review 1a - Degree of recommendation A	To characterize the clinical and epidemiological profile of leprosy in patients seen from 2007 to 2011 at the University Hospital of Ceará, Northeastern Brazil.	There was a prevalence of the multibacillary clinical form with a high degree of physical disability (DPD) and worsening in post-discharge cases; the feet segment was the most affected; there was no follow-up of DPD assessment at discharge and post-discharge.	Absence of longitudinal care impairs the planning of actions aimed at preventing disabilities.
Raposo MT, Reis MC, Caminha AVQ, Heukelbach J, Parker LA, Pastor-Valero M, Nemes, MIB[5] Grade 2 disabilities in leprosy patients from Brazil: Need for follow-up after completion of multidrug therapy.	Case series 4 - Degree of recommendation C	To determine the prevalence of grade II disabilities (GD2) associated with leprosy after the end of multidrug therapy (MDT) and identify factors associated with GD2.	Prevalence of high burden of physical disabilities especially in endemic areas after completion of MB treatment; significant association between degree of disability II and the occurrence of leprosy reactions, nerve thickening, unemployed people and people with low education; invisible deformities as a worrying condition in a population vulnerable to developing new secondary disabilities.	Lack of monitoring after the end of treatment; absence of systematized care. comprehensive and longitudinal (protocols with post-discharge event notification system) combined with preventive measures, including individuals after completion of treatment.
Santos AR, Silva PRS, Steinmann P, Ignotti E[25] Disability progression among leprosy patients released from treatment: a survival analysis	Cohort study 2b - Degree of recommendation B	To evaluate the probability and factors associated with the progression of the degree of physical disability after discharge from treatment among leprosy patients treated in Cáceres-MT from 2000 to 2017.	There is an average time for the worsening in the progression of the degree of physical disability after discharge from treatment; for those who had a leprosy reaction during treatment, the average time to develop physical disability is shorter; operationally, over the years, the probability of developing physical disability is similar between PB and MB cases.	There is no periodic monitoring after discharge from drug treatment, a condition in which the patient is more susceptible to the worsening of the physical disability; low adherence to self-care practices; absence of prevention activities, regardless of the operational form treated; disqualification from providing standardized and qualified post-treatment services.

Source: Self design, 2021.

DISCUSSION

Worldwide, leprosy is characterized by a disease belonging to a group of neglected diseases that more frequently affects populations with a profile of extreme socioeconomic vulnerability. In Brazil, this aspect requires an organization of municipalities about health services for early detection and timely treatment, since understanding the dynamics of the disease and its epidemiological profile, especially inserted in its territorialization, is fundamental for the design of actions aimed at confrontation(2,20).

Therefore, the first relevant data that subsidizes the discussion refers to publications related to the country and language, with emphasis on studies from the national territory in the English language. This fact can be explained by the epidemiological relevance of the topic to the Brazilian reality. However, it follows a worldwide trend in science to establish English as an international language, chosen by researchers in publications due to the greater number of hits and views(5,11,14,21,23,25).

Most of the analyzed studies belong to the field of Tropical Medicine, given the relevance of the theme in endemic regions and in areas with difficult control of leprosy cases. However, the lack of studies in other professional areas is evident, considering that this is a topic that can have a great impact on the quality of life of those individuals. The patient affected by leprosy, even in the post-discharge condition, demands interdisciplinary, integral, and longitudinal care that permeates measures of promotion, prevention, protection, treatment, and rehabilitation, not only from a clinical perspective, but above all from a social perspective. The need for greater involvement and participation of other professional areas in carrying out research on leprosy is evident, providing the exchange of scientific knowledge for the benefit of the patient(5,11,23-25).

In the analysis of the methodological approach used in the studies, the quantitative approach stands out, with cohort studies also being frequent. Quantitative research aims to formulate hypotheses and analyze the relationship between variables, especially when seeking thecause-effect relationship between phenomena; understand and classify dynamic processes of certain groups; present contributions in the change process; and create or form opinions, allowing the interpretation of particularities and/or behavior of individuals(5,11-14,22,23,25,26).

Based on the frequency of sociodemographic data present in the articles that make up this review, it is possible to profile participants as men, adults, married, Caucasian and with low education, who work professionally as a salesperson, service provider or farmer, emphasizing that they are professions that require good physical mobility and independence from the individual to carry out activities. This profile corroborates national studies present in the scientific literature and epidemiological data made available by the Ministry of Health, which demonstrate a high prevalence of multibacillary (MB) cases among this clientele(2,5,11-13,22-24,27,28).

The outstanding conditions associated with aspects of clinical impairment in the post-discharge from leprosy elucidate physical and functional limitations, disabilities, and deformities. In this phase, in which the sequelae of the disease remain, leprosy raises a phenomenon in the patient through which the affected person no longer has a neglected infectious-contagious disease and acquires a disabling chronic condition that compromises their quality of life, with chances of suffering immunological reactions even after discharge(5,11-14,23,25,29,30).

Therefore, studies condition the negative impact resulting from this physical impairment in patients cured of leprosy to the damage of late diagnosis, in view of the prolonged time of exposure to the bacillus and failures in drug treatment. In the long term, this scenario increases the chances of developing disabilities. There are also gaps related to the implementation of public policies aimed at this public(6,31).

About the most affected body region, the data obtained corroborate the results of studies carried out in the states of São Paulo, Goiás, Maranhão, Ceará and Tocantins, as well as in India, where dermato-neurological signs and symptoms are frequently manifested in the skin and in the peripheral nerves, especially eyes, hands and feet. These conditions are often related to impaired functional capacity and quality of life, as they limit and interfere with the physical condition of these people(12-14,24,31,32).

The presence of functional disability directly limits the practice of basic and more complex activities of daily living, influencing the individual's participation and social interaction, predisposing to work disability and financial losses, consolidating the stigma for the disease, and compromising the quality of life and the perception that the patient has about himself. Recent studies reflect the impairment of some domains of quality of life in patients being treated and cured of leprosy, with emphasis on the physical as the most affected, followed by the environmental, psychological and social(6,8,33-38).

However, it is extremely necessary to evaluate possibilities of therapeutic conduct aimed at the reactional state of the disease, frequent immunoinflammatory events in the post-discharge condition of leprosy. Health services, especially those of reference, should plan actions aimed at affected graduates to qualify rehabilitative care and multidisciplinary follow-up, especially Nursing, mitigating the sequelae. This is because it is necessary to rescue not only its functionality, but self-esteem, bonds, and relationships with social media(37,38).

However, it is recommended to carry out constant training and professional updating of the team, especially those of the Family Health Strategy (FHS), regarding the reception and management of patients affected by leprosy, strengthening actions to control and eliminate this condition and its complications(39). There is a lack of continuing education in health targeted at the clientele in this context. Therefore, it is necessary to strengthen the relationship between the health unit and the community, provide preventive actions and modify behaviors, respecting the cultural and socioeconomic conditions of each patient. Some components within public policies in Brazil suggest the role of the health team in the perspective of active search for early detection of cases; monitoring of regular MDT treatment; contact prevention; early detection and adequate treatment of reactions and neuritis; emotional condition support and social integration with support groups; and encouraging self-care(40).

Inadequate post-discharge follow-up from leprosy expresses failure in longitudinal care. Thus, it is up to the three levels of health care to ensure a comprehensive and longitudinal line of care for this public. Considering the narrative of the studies found, the ideal is to build a health action plan suited to this reality to identify vulnerable situations early. Unfavorable environmental and socioeconomic conditions hinder the endemic control of the disease and are determining factors for low demand and reduced access to health services(14,29,41).

In view of the delay in detecting and providing treatment for reactional episodes and biopsychosocial rehabilitation, studies have conducted and suggested the adoption of scales that allow systematizing care surveillance and effectiveness in promoting health rehabilitation for post-discharge events. In summary, it requires effectiveness in the attempt to organize criteria and requirements as a methodology that guarantees the management of care directed to the problem of monitoring post-discharge cases of leprosy, with a view to minimizing the progression of damage and complications(13).

In view of the above, the scarcity of scientific production on the subject, including in the international context, stands out as a limitation of the present study, which can contribute with a greater theoretical basis and new results for future actions based on evidence capable of minimizing the occurrence of impairments or timely and preventable complications. Still, one should consider the results found only for the population in question.

CONCLUSION

Conditions associated with compromised health in post-discharge cases of leprosy, according to mapping in the scientific literature, were evidenced more frequently by impairments, mainly of a physical nature, which directly impact daily activities, the presence of a reactional state of the disease, the worsening of the degree of physical disability between discharge and post-discharge, social stigmatization, and implications for quality of life.

From the perspective of monitoring related factors, studies pointed out as factors related to the findings the deficit of trained professionals, lack of knowledge of assessment techniques and classification of the degree of disability, inadequate post-discharge follow-up, lack of provision of education promotion in health, the difficulty of accessing health services, the delay in the treatment of reactional episodes and biopsychosocial rehabilitation, and the lack of protocols and instruments for systematizing care.

Therefore, it is essential to know the evidence associated with commitment and monitoring in the post-discharge period from leprosy, which can support the precise performance of the multidisciplinary team in the longitudinal perspective of promoting care and rehabilitation of cases, given the greater physical vulnerability, psychological, social and/or economic. The importance of systematized and dynamic care by a prepared and trained team is evident, even after the exclusion of active registration in health services, whether in primary care or in the reference service.

In this sense, it is suggested to carry out research with an interventionist approach, in order to strengthen not only the scientific evidence, but to equip professionals in the area of evidence to formulate institutional protocols that standardize the monitoring of reactional episodes, as well as the presence of limitations, disabilities or deformities, proposing the most appropriate intervention for each case.

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