

## Revista Prevenção de Infecção e Saúde

The Official Journal of the Human Exposome and Infectious Diseases Network

REVIEW

DOI: https://doi.org/10.26694/repis.v9i1.4763

# Health Technologies for preventing physical disabilities caused by leprosy

Tecnologias em saúde na prevenção de incapacidades físicas por hanseníase

Tecnologías en salud en la prevención de discapacidades físicas por la lepra

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How to cite this article:

Candido SCN, Almeida PD. Health Technologies for preventing physical disabilities caused by leprosy. Rev Pre Infec e Saúde [Internet]. 2023;9:4763. Available from: http://periodicos.ufpi.br/index.php/repis/article/view/4763. DOI: https://doi.org/10.26694/repis.v9i1.4763

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#### ABSTRACT

Introduction: Leprosy is of significant public health concern as it is an infectious and chronic disease with the potential to cause physical disabilities. Aim: To identify health technologies in scientific literature for preventing physical disabilities caused by leprosy. Outlining: This is an integrative literature review, based on the research question: "What health technologies are applied to prevent physical disabilities caused by leprosy?" formulated using the PICo strategy, where "P" stands for Population (leprosy), "I" for phenomenon of Interest (technologies), and "Co" for Context of the study (prevention of physical disabilities). Results: Eleven articles published between 2001 and 2020 in Brazil were included. More than seventy technologies were identified for use in disability prevention. The primary types of health technologies for preventing physical disabilities include strategies and materials such as lectures, home visits, and establishing a strong relationship between healthcare professionals and patients. Implications: It was identified that in the context of preventing physical disabilities caused by leprosy, assistive technology (assessment of physical disabilities, wound care, and immobilization, among others); educational technology (such as guidance on hygiene and proper medication use); and managerial technology (clinical meetings, for example) play crucial roles.

#### DESCRIPTORS

Leprosy; Technology; Disease Prevention; Disabled Persons.

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Submitted: 2023-09-11 Accepted: 2023-09-12 Published: 2023-10-26

#### INTRODUCTION

Leprosy is of significant public health concern due to being an infectious and chronic disease,<sup>1</sup> transmitted through the upper respiratory tract.2 It is caused by the Mycobacterium leprae bacterium, a microorganism that primarily affects the skin and nerves in the extremities of the body, with a high infection capacity but few people falling ill.<sup>3</sup> According to the World Health Organization (WHO), in 2021, there was a 10.2% increase in the detection rate of new cases compared to 2020. A total of 106 countries reported 140,594 new cases of leprosy, with India accounting for approximately 53.6% of them. In the Americas that year, 19,826 (14.1%) cases were reported, with Brazil accounting for 18,318 (92.4%) of them. Consequently, India, Brazil, and Indonesia have the highest number of new cases, making up 74.5% of the global total.4 Among the 35 countries in the Pan American Health Organization (PAHO), Brazil is the only one that has not yet eliminated leprosy as a public health problem.<sup>5</sup>

Leprosy has a broad clinical spectrum due to its granulomatous nature, presenting clinically in various ways, and it can affect individuals of all genders and age groups.<sup>6</sup> The main clinical manifestations include skin lesions, paresthesias at the site of dermatological lesions, thickening of nerves, pain, and loss of sensitivity and/or strength in the areas of affected nerves. The severity of the disease is classified based on the number of lesions, bacterial load, and level of involvement of peripheral nerves.<sup>1</sup> It is important to note that leprosy treatment is provided free of charge through the multidrug therapy (MDT) available at any Primary Health Care unit in Brazil.<sup>7</sup>

In addition to the consequences resulting from the action of Mycobacterium leprae in the body, there are reactional adverse events that lead to inflammation and increased neural involvement.<sup>8</sup> Reactional states can occur in both paucibacillary (PB) and multibacillary (MB) cases.<sup>8</sup> This neural involvement is responsible for the potentially disabling nature of the disease, which, when left untreated or treated late, can result in deformities and disabilities.<sup>2</sup>

The degree of physical disability caused by the bacterium is determined through a neurological examination, which involves inspection, palpation/percussion, and functional assessment of nerves (sensitivity, muscle strength) from head to toe.7 When there is no neural involvement, patients are classified as grade 0. When there is a decrease or loss of sensitivity, for example, in the eyes, it is classified as grade 1, and grade 2 when there are more severe lesions on the hands and feet.<sup>1</sup>

Such complications may be related to the lack of public awareness about the clinical aspects of the disease and its timely diagnosis.1 They can be prevented through procedures and exercises that individuals should regularly perform at home during and after treatment.<sup>2</sup> Physical disabilities resulting from the disease, in addition to being stigmatizing, interfere with an individual's emotional, social, and productive stability.<sup>9</sup>

The role of nurses in leprosy during nursing consultations includes examining and evaluating complaints, dermatological and neurological lesions for disease identification, as well as monitoring treatment adherence, serving as support to facilitate and empower individuals or groups to maintain or regain their well-being.<sup>10</sup> Their importance in providing longitudinal care to patients, from diagnosis onwards, is emphasized, with a focus on preventing disabilities and promoting health through health education, ensuring the ongoing involvement of users in programs.<sup>11</sup>

In the field of nursing, Educational Technologies (ET) are considered, involving the use of scientific knowledge to plan, execute, control, and monitor the entire formal and informal educational process; Managerial Technologies (MT), where human and material resources are applied, allowing for a dialogue-based approach among individuals; and Care Technologies (CT), aimed at supporting, maintaining, and promoting people's life processes in "health and illness situations," enabling nursing professionals to use their senses in choosing and providing care.<sup>12</sup>

The extensive dimension of leprosy within the context of public health inequity encompasses various including aspects, social, individual, and programmatic vulnerabilities, as well as stigma, which can cause social and psychological harm to individuals, and dermatological and neurological lesions that can sometimes lead to irreversible physical disabilities. Comprehensive and longitudinal care within the leprosy context is crucial for maintaining the quality of life of affected individuals, preventing disabilities, rehabilitation, treatment adherence, attention to leprosy reactions, and other necessary care.

Given the aforementioned scenario, there is a need to develop and implement effective, targeted, and appropriate strategies for leprosy disability prevention. Educational, care, and managerial technologies applied in health need to be identified in order to synthesize scientific evidence and propose the implementation of potential and appropriate interventions.

Scientific literature contains studies addressing health technology and leprosy; however, it remains scarce and with research questions different from those proposed in this study. Therefore, this research aims to identify in the scientific literature the health technologies applied to the prevention of physical disabilities caused by leprosy.

#### **METHOD**

This is an integrative literature review that will be conducted in six stages: defining the research question, literature investigation, data collection, critical analysis of the studies, discussion, and presentation of the findings as an integrative review.<sup>13</sup> The guiding research question was formulated using the PICo strategy, where "P" represents Population (leprosy), "I" stands for the phenomenon of Interest (technologies), and "Co" pertains to the Context of the study (prevention of physical disabilities). The formulated research question is: "What health technologies are employed in the prevention of physical disabilities resulting from leprosy?".<sup>14</sup>

The search and selection of studies were carried out from April to June 2023 in six databases: Medical Literature Analysis and Retrieval System Online (MEDLINE/PubMed), SCOPUS, Cochrane Controlled Trials Database, Latin American and Caribbean Health Sciences Literature (LILACS), BDENF, Web of Science, and the Virtual Health Library for Leprosy (BVS-HANSEN).

Descriptors derived from the Health Sciences Descriptors (DeCS), Medical Subject Headings (MeSH), and EMTREE were utilized: leprosy, technologies, prevention, and physical disabilities. Subsequently, to create search strategies, these descriptors were combined using Boolean operators AND and OR, as per the requirements of different databases. No specific time limit was imposed.

Inclusion criteria consisted of original articles in Portuguese, English, and Spanish that addressed the research question, with no restriction on the publication year, enabling a comprehensive analysis. Exclusion criteria encompassed simple or extended abstracts and editorials.

Two independent researchers selected the studies by reviewing titles and abstracts. Subsequently, a comprehensive analysis of eligible articles was conducted, and a flowchart outlining the stages of study selection and eligibility was generated in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. Figure 1 illustrates the process of study selection and the acquisition of eligible articles, in line with PRISMA.

Figure 1- Flowchart for the selection of studies in the integrative review sample according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA).



The sample consisted of 2,173 articles, which, after the selection stage, totaled 84 studies. These studies were screened based on their titles and abstracts, and 32 articles were eligible for full-text reading. After this stage, 11 articles were included for addressing the research question.

## year and country of publication, study design, number of participants, type of technology found, and outcome. A total of 11 articles published between 2001 and 2020 were included in the sample, and they were predominantly Brazilian publications, with most of them addressing more than one type of technology.

#### RESULTS

In Chart 1 presents the characterization of the studies included in this review, including titles,

Chart 1	-	Characterization	of	article	s in	cluded	l in	the study	/ sam	ple.	Manaus-AM.	Brazil.	2023
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Title	Year / Country	Study Design	Technology	Outcomes
Hansen's disease patients' perceptions on their altered fundamental human needs: indications for self-care <sup>16</sup>	2020: Brazil	- Qualitative (descriptive); N = 10 patients	Educational	Patients who accepted and met the research criteria reported fear of prejudice and low self-esteem. They hid skin patches and deformities to prevent friends and family from discovering their disease. The authors recommended that educational guidance should take place in a horizontal and participatory manner, along with professional training.

Multiple dimensions of healthcare management of leprosy and challenges to its elimination <sup>17</sup>	2020: Brazil	- Mixed design: qualitative (intentional sampling) and quantitative; N = 19 (six healthcare professionals, seven patients, and four family members)	Assistive / Educational / Managerial	The study highlights individual and collective health education, teamwork, building trust and rapport with users, and ongoing professional education as a means of preventing disabilities.
Práticas de autocuidado em hanseníase: face, mãos e pés <sup>9</sup>	2018: Brazil	- Qualitative; N = 24 patients	Assistive / Educational	Users reported receiving simple guidance from the nursing team, such as the use of moisturizers, hats, sunglasses, and sunscreen for managing disabilities and preventing further complications.
Conhecimento sobre prevenção de incapacidades em um grupo de autocuidado em hanseníase <sup>18</sup>	2014: Brazil	- Qualitative; N = 16 patients	Assistive / Educational	In a self-care group where patients exchange information to enhance their care, accompanied by healthcare professionals, self-inspection is emphasized as a preventive measure.
Ações do enfermeiro no controle da hanseníase <sup>19</sup>	2011: Brazil	- Qualitative; N = Nine nurses	Assistive / Educational	Interviewed nurses demonstrated their efforts to ensure user adherence, with the assistance of community health workers (CHWs) who actively seek out and conduct home visits.
O processo de trabalho em hanseníase: tecnologias e atuação da equipe de saúde da família <sup>20</sup>	2011: Brazil	- Qualitative; N = 45 (13 managers, 10 doctors, 12 nurses, 10 community health workers)	Assistive / Educational / Managerial	The analysis of the work of the multiprofessional team, with a focus on clinical meetings and collaborative care, facilitates the training of more professionals and enhances colleague relationships.
Prática de enfermagem na condição crônica decorrente de hanseníase <sup>11</sup>	2009: Brazil	<ul> <li>Qualitative (case study); N = Two healthcare units</li> </ul>	Assistive / Educational / Managerial	The article emphasizes that establishing a positive relationship with users contributes significantly to treatment. Beyond the client relationship, maintaining good rapport with other professionals is essential for better diagnosis and treatment when working together.
Avaliação do grau de incapacidade em hanseníase: uma estratégia para sensibilização e capacitação da equipe de enfermagem <sup>21</sup>	2007: Brazil	- Mixed design: qualitative and quantitative; N = 99 patients	Assistive / Educational	There was training for the nursing team in consultations, demonstrating step-by-step assessments, promoting the prevention of physical disabilities, and acquiring knowledge for healthcare professionals.
A prática de enfermagem em curativos de hansenianos em unidades de saúde da Direção Regional de Saúde XXIV <sup>22</sup>	2004: Brazil	- Qualitative; N = 56 nursing professionals	Assistive	It assesses the knowledge of healthcare professionals regarding the scientific understanding of dressings for leprosy patients. It measures knowledge about new techniques and dressing assessments.

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Comprometimentos oculares em hanseníase: avaliação em consulta de enfermagem <sup>23</sup>	2002: Brazil	- Mixed design: qualitative and quantitative; N = 60 patients	Assistive / Educational	The study found that ocular impairments are quite common in multibacillary (dimorphic and virchowian) forms. The article discusses the importance of continuous education for healthcare professionals, especially nurses, who are likely to be the first point of contact in a healthcare network.
Promovendo o autocuidado no controle da hanseníase <sup>24</sup>	2001: Brazil	Qualitative; N = 50 patients	Assistive / Educational	Interventions during nursing consultations based on self-care and establishing a bond with the user aim to improve treatment adherence.

Source: Authors' own compilation.

In the category of assistive technology, the research highlighted: building a bond and trust with

users, home visits, and surveillance of intrafamily contacts, among others, as shown in Chart 2.

Chart 2 - Assistive	Technologies.	Manaus,	AM,	Brazil,	2023.
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Assistive Technology
Ophthalmological follow-up and guidance on the use of eye drops <sup>9</sup>
Assessment of physical disabilities at the beginning of treatment <sup>21</sup>
Thorough initial assessment <sup>21</sup>
Holistic care <sup>21</sup>
Wound dressing <sup>18,22</sup>
Immobilization procedures <sup>22</sup>
Wound cleaning <sup>18</sup>
Dermatological examination <sup>21</sup>
Ophthalmological examination <sup>23</sup>
Supervision of doses <sup>19,16</sup>
Lesion assessment <sup>22</sup>
Epidemiological chain disruption <sup>19</sup>
Treatment supervision <sup>20</sup>
Wound dressing technique <sup>22</sup>
Active search for missing individuals <sup>17,19</sup>
Consideration of the individual's subjectivity and uniqueness during care provision <sup>19</sup>
Building trust and rapport with users <sup>17,19,20,24</sup>
Early diagnosis <sup>11,17,19</sup>
Sensitive listening <sup>16,23</sup>
Guidance on treatment and the disease <sup>16</sup>
Recording information in medical records <sup>11</sup>
Teamwork <sup>11,17</sup>
Surveillance of intrafamily contacts <sup>17,24,19</sup>

Teamwork<sup>11,17</sup>

Family support<sup>17,24</sup>

Individual care for people with suspected and/or confirmed diagnosis<sup>19</sup>

Family support<sup>17,24</sup>

Individual care for people with suspected and/or confirmed diagnosis<sup>19</sup>

Home visits<sup>11,19,20</sup>

Source: Authors' own compilation.

In Chart 3 describes educational technologies, with the most mentioned technology in the selected articles being individual and collective health education, as well as guidance on the importance of hydration and body lubrication, sunscreen use, and sun exposure prevention.

Chart 3 - Educational Technologies. Manaus, AM, Brazil, 2023.

Educational lechnology					
Routine eye assessment <sup>23</sup>					
Periodic and attentive assessment of the eyelid margin <sup>23</sup>					
Training of permanent instructors and knowledge multipliers <sup>21</sup>					
Sharing information and training to increase motivation <sup>18</sup>					
Guidance on stair care <sup>18</sup>					
Care focused on educational, behavioral, psychological, and social aspects <sup>11,17</sup>					
Individual and collective health education (lectures, theater, events, campaigns, educational					
materials) <sup>11,16,17,19,20,21</sup>					
Informing patients about simple prevention techniques <sup>21</sup>					
Guidance on avoiding floor level differences <sup>18</sup>					
Guidance on inspecting the inside of footwear before and after use <sup>9</sup>					
Guidance on inserting long wooden handles into pots, forks, and spoons, using gloves or tongs <sup>9</sup>					
Guidance on inspecting the body every day <sup>18</sup>					
Guidance on maintaining floors and floorboards free of slippery substances <sup>18</sup>					
Guidance on not wearing shoes for extended periods <sup>18</sup>					
Guidance on avoiding alcohol consumption <sup>16</sup>					
Guidance on arranging furniture for clear passage <sup>18</sup>					
Guidance on preferring ramps over stairs <sup>18</sup>					
Guidance for the patient to check their eyes daily, looking for trichiasis <sup>9</sup>					
Guidance on using handrails <sup>18</sup>					
Guidance on avoiding dark environments18					
Guidance on self-care <sup>18,19</sup>					
Guidance on correct medication use <sup>11,24</sup>					
Guidance on organizing daily activities <sup>9</sup>					
Guidance on accident prevention <sup>24</sup>					
Guidance on disability prevention <sup>19</sup>					
Guidance for immersing limbs in buckets or basins with water at the appropriate temperature for 10 minutes <sup>9</sup>					

Guidance for walking in shoes with loose cotton socks<sup>9</sup>

Guidance on avoiding barefoot walking<sup>9</sup>

Guidance on avoiding scratching or rubbing the eyes, removing foreign bodies with cloths<sup>9</sup>

Guidance on avoiding exposure of lower or upper limbs to situations with the risk of injury, burns, cuts, or punctures<sup>9</sup>

Guidance on avoiding picking the interior of the nose with a finger or other object<sup>9</sup>

Guidance on massaging areas affected by the disease<sup>22</sup>

Guidance on rest<sup>24</sup>

Guidance on being careful while cooking<sup>16</sup>

Guidance on using night eye patches9

Guidance on wearing a hat and sunglasses for protection against sun exposure<sup>9</sup>

Guidance on healthy eating<sup>16</sup>

Guidance on the need for hydration and body lubrication, sunscreen, and preventing sun exposure<sup>9,16,18</sup>

Guidance on skin care<sup>16,24</sup>

Guidance on hygiene<sup>18</sup>

Guidance on hygienic care of the nose, washing it 3 to 4 times a day<sup>9</sup>

Guidance on passive and active exercises<sup>22</sup>

Guidance on wearing appropriate shoes<sup>9,16</sup>

**Source:** Authors' own compilation.

In Chart 4, managerial technologies found are described. These include patient reception, as well as

the harmonious interaction among professionals for the care of individuals affected by leprosy.

Chart 4 - Educational Technologies. Manaus, AM, Brazil, 2023.

Managerial Technology
Reception <sup>11,17,20</sup>
Joint professional care <sup>20</sup>
Humanized and comprehensive care <sup>19</sup>
Critical attitude (knowledge improvement) <sup>19</sup>
Good professional relationships <sup>11</sup>
Clinical meetings <sup>20</sup>
Epidemiological surveillance <sup>19</sup>

**Source:** Authors' own compilation.

#### DISCUSSION

This literature review has unveiled the primary types of health technologies applied to prevent physical disabilities in patients with leprosy, which include assistive, educational, and managerial technologies. These technologies encompass various strategies and materials for averting physical disabilities, spanning from lectures to home visits, and the establishment of robust healthcare professional-patient relationships. Some of these technologies have shown varying degrees of effectiveness, whether in diagnosis, treatment, or the prevention of specific issues.<sup>25</sup>

In general, the outcomes of the articles primarily focus on health education for professionals and patients, as well as self-care. Continuous education aimed at training professionals for better care and early disease identification is a recurring theme. Self-care emphasizes patient independence and vigilance regarding any abnormalities in their bodies, not only during treatment but throughout their lives. As identified by Santos,<sup>26</sup> their study found that the guidance provided was mainly related to neurological assessment and the degree of physical disability, in addition to techniques for preventing disabilities and self-care. The study underscores the need to go beyond healthcare and incorporate social, family, and cultural aspects into disability prevention efforts.

#### Assistive Technology

According to Nietsche,<sup>12</sup> assistive technology enables interpersonal dimensions, allowing professionals to utilize their senses in choosing and providing care, with the purpose of supporting, maintaining, and promoting the life processes of individuals with diseases. It encompasses a set of systematic, procedural, and instrumental actions for delivering quality care. Based on this, the technologies considered assistive were related in this research.

The actions integrated into assistive technology identified in this study reflect the conceptual, political, strategic, and healthcare advances highlighted in official documents in Brazil for the prevention of physical disabilities caused by leprosy over the past 54 years.<sup>26</sup>

Considering the neurological damage caused by leprosy, there may be a reduction or loss of sensitivity in the limbs. Therefore, regular follow-up by a healthcare professional and home visits to assess living conditions and organize daily activities with adaptations to utensils become essential for preventing physical disabilities in daily life and recommending therapeutic adaptations of everyday utensils.<sup>9</sup>

The assessment of the degree of disability in new cases through dermatological examinations is crucial, as patients may present affected peripheral nerves or physical disability at the time of diagnosis. Each action should be informed, discussed, and clarified to the patient with the aim of learning simple disability prevention techniques to be practiced at home, thereby avoiding complications.<sup>21</sup>

The role of nurses in leprosy treatment has been present for decades, as seen in research conducted in the State of São Paulo in 1955, highlighting the control of leprosy treatment as part of nursing actions, especially in monitoring patients with leprosy reactions and treating disabilities affecting the face, eyes, hands, and feet.<sup>19</sup>

#### Educational Technology

Educational technologies, which can be classified as a systematic body of scientific knowledge enabling the planning, execution, control, and monitoring of the entire formal and informal educational process, require healthcare professionals to act as facilitators of the teaching and learning process.<sup>12</sup> This study has revealed that a significant portion of the actions involved educational technology, which has always been prominent, as seen in Santos' study.<sup>26</sup> In their findings, it was identified that in 1977, the Ministry of Health published the first manual on physical disabilities caused by leprosy, which covered not only aspects of anatomy and physiology of the affected areas of the body, treatment, techniques for preventing disabilities, physical assessment, and sensitivity and strength testing but also emphasized health education as an important strategy for disability prevention, coupled with a change in the attitude of individuals affected by the disease.

Cavalcante,<sup>17</sup> also highlights the positive impact of health education, especially in terms of

increased healthcare service utilization, contact examination, and treatment adherence, assisting in destigmatizing the disease. In this context, this review identified the use of pamphlets, theatrical performances, lectures, and other health education activities. According to the study by Pinheiro,<sup>18</sup> after the lectures, healthcare professionals reported that users sought medical services because they identified skin patches and even a lack of sensitivity, important information for diagnosis and disability prevention.

#### Managerial Technology

Managerial technology is considered a systematic and tested process of theoretical-practical actions (planning, execution, and evaluation) used in the management of healthcare assistance and services, intervening in the context of professional practice, with the aim of improving its guality.<sup>12</sup> According to Lopes, there is a need to invest in human resources policies to make labor relations more democratic and respectful of workers' rights. Improving both professional training and qualifications is essential to make healthcare provision more humanized in its services. Humanized reception is a strategy of the Unified Health System (SUS) to ensure that users have access to services, as with humanization, care is directed according to their needs.27

As seen in this study, managerial technologies had a smaller quantity of actions. This fact is similar to what was identified in Cavalcante's work,<sup>17</sup> which revealed the concern about the lack of interest among managers in non-hyperendemic states in investing in leprosy care. Detection of new cases often occurs when individuals are in a severe state of the disease and/or have physical disabilities at the time of diagnosis. Home visits and surveillance of intrafamily contacts were the most mentioned technologies in the studies, emphasizing the importance of close proximity to patients. Home visits encompass a range of activities, from simple to complex, targeting both individuals and their families. It is a fundamental action in primary care, as it allows for the development of practices tailored to promote health in a more specific way for the individual and/or family.<sup>28</sup>

According to Cavalcante,<sup>17</sup> a cure rate of over 90% with a low dropout rate indicates good quality of care and case management. The main action strategy for achieving this is the surveillance of intrafamily contacts. In the VigiaSUS system, it is one of the main indicators tracked to gain better control of the disease, and for disability prevention, comprehensive patient follow-up is essential.

A limitation of the study was the scarcity of studies mentioning actions that integrated managerial technology. However, it was still possible to identify relevant actions that contribute to the prevention of physical disabilities in leprosy. Further searches are needed to identify and subsequently select those that address the research question.

#### CONCLUSION

This study identified that within the context of preventing physical disabilities caused by leprosy, all three categories of health technologies were present. In assistive technology, actions included the assessment of physical disabilities, wound care, immobilization, wound cleaning, ophthalmological examinations, among others. Regarding educational technology, it encompassed guidance on hygiene, correct medication use, accident prevention, and organizing daily activities. In managerial technology, highlights included clinical meetings, collaborative care, and positive professional interactions.

Therefore, it was possible to recognize the importance of these actions and reflection on healthcare professionals' practice with health technology to explore new possibilities for preventing physical disabilities in leprosy. This is crucial as it requires continuous and longitudinal care, addressing various aspects of the disease.

#### RESUMO

Introdução: A hanseníase possui importância na saúde pública por se tratar de uma doença infectocontagiosa e crônica, com capacidade de provocar incapacidades físicas. Objetivo: Identificar na literatura científica as tecnologias em saúde para a prevenção de incapacidades físicas por hanseníase. Delineamento: Trata-se de uma revisão integrativa da literatura, a partir da questão de pesquisa: "Quais as tecnologias em saúde aplicadas à prevenção de incapacidades físicas por hanseníase?", elaborada pela estratégia PICo, "P" corresponde à População (hanseníase), "I" fenômeno de Interesse (tecnologias) e "Co" Contexto do estudo (prevenção às incapacidades físicas). Resultados: Foram incluídos onze artigos publicados entre 2001 e 2020, no Brasil. Identificaram-se mais de setenta tecnologias que são utilizadas na prevenção de incapacidades. Os principais tipos de tecnologias em saúde, a partir de estratégias e materiais para a prevenção de incapacidades físicas, desde palestras, visitas domiciliares a um bom vínculo entre profissional de saúde e usuário. Implicações: identificou que no âmbito da prevenção de incapacidades físicas, e realização de curativos e imobilizações, entre outras); educacional (como, a orientação sobre higiene, uso correto da medicação); e a gerencial (reuniões clínicas; por exemplo).

#### DESCRITORES

Hanseníase; Tecnologia; Prevenção de Doenças; Pessoas com Deficiência.

#### RESUMEN

Introducción: La lepra tiene importancia en la salud pública al tratarse de una enfermedad infecciosa y crónica, con capacidad para causar discapacidades físicas. Objetivo: Identificar en la literatura científica las tecnologías en salud para la prevención de discapacidades físicas por la lepra. Delineación: Se trata de una revisión integradora de la literatura, a partir de la pregunta de investigación: "¿Cuáles son las tecnologías en salud aplicadas a la prevención de discapacidades físicas por la lepra?", elaborada mediante la estrategia PICo, donde "P" corresponde a la Población (lepra), "I" al fenómeno de Interés (tecnologías) y "Co" al Contexto del estudio (prevención de discapacidades físicas). Resultados: Se incluyeron once artículos publicados entre 2001 y 2020 en Brasil. Se identificaron más de setenta tecnologías que se utilizan en la prevención de discapacidades. Los principales tipos de tecnologías en salud incluyen estrategias y materiales para la prevención de discapacidades físicas, como charlas, visitas domiciliarias y un buen vínculo entre el profesional de la salud y el usuario. Implicaciones: se identificó que en el ámbito de la prevención de discapacidades físicas por la lepra, se utilizan tecnologías asistenciales (evaluación de discapacidades físicas y realización de vendajes e inmovilizaciones, entre otras), educativas (como la orientación sobre higiene y el uso correcto de medicamentos) y gerenciales (reuniones clínicas, por ejemplo).

#### DESCRIPTORES

Lepra; Tecnología; Prevención de Enfermedades; Personas con Discapacidad.

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#### **COLLABORATIONS**

SCNC and PDA: substantial contributions to the study design, data collection and analysis, interpretation of results, manuscript writing and revision, and the final version to be published. All authors agree and are responsible for the content of this version of the manuscript to be published.

#### ACKNOWLEDGMENTS

Not applicable.

### AVAILABILITY OF DATA

Not applicable.

#### **FUNDING SOURCE**

This study was financed in part by the Federal University of Amazonas and Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Brasil (CAPES) - Finance Code 001.

#### **CONFLICTS OF INTEREST**

There are no conflicts of interest to declare.