

# HEALTH TECHNOLOGIES FOR SELF-CARE PROMOTION IN PATIENTS WITH LEPROSY: EXPLORING SCIENTIFIC EVIDENCE

## TECNOLOGIAS EM SAÚDE PARA A PROMOÇÃO DO AUTOCUIDADO EM PACIENTES COM HANSENÍASE: EXPLORANDO EVIDÊNCIAS CIENTÍFICAS

## TECNOLOGÍAS EN SALUD PARA LA PROMOCIÓN DE AUTOCUIDADO EN PACIENTES CON LEPROSA: EXPLORANDO LA EVIDENCIA CIENTÍFICA

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**Objective:** to identify the main health technologies applied to people with leprosy for self-care promotion. **Method:** integrative review performed at Hansen, LILACS, BDNF, MEDLINE, SciELO, CINAHL, Web of Science and in the Virtual Health Library Leprosy databases, through the intersection of the descriptors Leprosy, Health Technology and Self-care. The sample included articles published in the period from 2008 to 2018 in English, Spanish and Portuguese. **Results:** 19 articles were selected, which identified the educational technologies, based on group creation, lectures and workshops, as well as assistive technologies, based on observation, research on care practices and use of instruments. **Conclusion:** assistive technologies were the most applied to people with leprosy, for self-care promotion.

**Descriptors:** Leprosy. Health Technology. Self-care.

*Objetivo:* identificar as principais tecnologias em saúde aplicadas às pessoas com hanseníase, para a promoção do autocuidado. *Método:* revisão integrativa realizada nas bases de dados Hansen, LILACS, BDNF, MEDLINE, SciELO, CINAHL, Web of Science e na Biblioteca Virtual em Saúde Hanseníase, por meio do cruzamento dos descritores Hanseníase, Tecnologia em Saúde e Autocuidado. *Foram incluídos os artigos publicados no período de 2008 a 2018 nos idiomas inglês, espanhol e português. Resultados:* foram selecionados 19 artigos, dos quais se identificaram as tecnologias educativas, com base na formação de grupos, palestras e oficinas, assim como as tecnologias assistenciais,

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*com base na observação, investigação sobre as práticas de cuidados e na utilização de instrumentos. Conclusão: as tecnologias assistenciais foram as mais aplicadas às pessoas com hanseníase, para a promoção do autocuidado.*

*Descritores: Hanseníase. Tecnologia em Saúde. Autocuidado.*

*Objetivo: identificar las principales tecnologías en salud aplicadas a personas con lepra, para la promoción del autocuidado. Método: revisión integradora realizada en las bases de datos Hansen, LILACS, BDNF, MEDLINE, SciELO, CINAHL, Web of Science y en la Biblioteca Virtual en Salud Lepra, a través de la intersección de los descriptores de Lepra, Tecnología en Salud y Autocuidados. Se incluyeron artículos publicados en el período de 2008 a 2018 en inglés, español y portugués. Resultados: se seleccionaron 19 artículos, que identificaron las tecnologías educativas basadas en la formación de grupos, conferencias y talleres, así como las tecnologías de asistencia, basadas en la observación, la investigación sobre las prácticas de cuidado y el uso de instrumentos. Conclusión: las tecnologías de asistencia fueron las más aplicadas a las personas con lepra, para la promoción del autocuidado.*

*Descritores: Lepra. Tecnología en Salud. Autocuidado.*

## Introduction

Leprosy is a serious public health problem worldwide due to the relevance of its social picture. In the year 2012, there were 232,587 new records of the disease worldwide, of which 2,420 cases concentrated in the American continent, with 2,234 notifications only in Brazil<sup>(1)</sup>. In 2015, 14 countries represented 95% of the global leprosy burden in this period and Brazil reported 26,395, constituting 13% of the new global cases<sup>(2)</sup>. Data show that Brazil is the second most endemic country to the disease, after India<sup>(3)</sup>.

Aiming to reduce the burden of leprosy in the world, the World Health Organization (WHO) developed a Global Leprosy Strategy 2016-2020, whose actions must be accomplished at global and local levels, in accordance with three pillars: strengthen government ownership and partnerships; stop leprosy and its complications; stop discrimination and promote inclusion<sup>(2)</sup>.

Considering the magnitude of the disease and seeking to reduce the problems arising from the leprosy nationally, Brazil implemented, in 2010, the National Leprosy Control Program (NLCP) whose Actions Leprosy Control (ALC) are part of Primary Health Care (PHC) and adopted by the WHO as strategies for better resolvability of health care and reducing the disease<sup>(4-5)</sup>.

The main goal of NLCP is to diagnose, treat and heal all cases, especially the control of morbidity through simple and easily applicable preventive measures, such as the constant search for the early detection of cases,

provisioning, monitoring and professional guidance regarding the treatment with the polychemotherapeutic (PCT) regimen, in addition to actions to prevent disability and/or rehabilitate the individual<sup>(6)</sup>. There also stands out the health production in the context of the teaching-learning practice and the integrality of the assistance provided to a person with leprosy, being these actions necessary to guide and encourage self-care<sup>(7)</sup>.

In the care provided to this public, health professionals need to develop an integral assistance, in order to reduce the consequences from the disease. In this context, health technologies stand out, here understood as a set of resources developed based on scientific knowledge and real experiences, in order to change realities related to health conditions. These are divided into three types, namely: educational technologies (devices for mediation in the teaching and learning process), assistive technologies (used in the care action, applied by professionals at the three care levels) and managerial technologies (applied in management activities)<sup>(8-9)</sup>.

Studies that include health promotion actions developed for the prevention and control of leprosy show that these are still incipient and always occur less frequently when compared to other health conditions<sup>(10-11)</sup>. This aspect expresses the importance of developing studies involving this theme.

Aware of the transformative power of health education as a strategy that favors self-care of people with leprosy, the present study was guided by the following question: What are the main health technologies used for self-care promotion for people with leprosy?

The objective of this study is to identify the main health technologies applied to people with leprosy for self-care promotion.

## Method

Aiming to expand the discussions on the theme, an integrative literature review was

developed to summarize the evidence and reveal the current knowledge on a topic<sup>(12)</sup>. To ensure the methodological rigor of this review, the methodological reference used was the steps proposed by a study<sup>(13)</sup> that presents general concepts for this type of review.

The construction of the research question involved the Population, Variables e Outcomes (PVO) strategy, which allows for structurally organizing the elements, according to Chart 1, which shows the components, the respective Medical Subject Headings (MeSH) and the Health Sciences Descriptors (DeCS) terms.

**Chart 1** – Items of the research strategy, components and descriptors

<b>Strategy Items</b>	<b>Components</b>	<b>MeSH Descriptors</b>	<b>DeCS Descriptors</b>
<i>Population</i>	People with leprosy	<i>Leprosy / Leprosy</i>	Leprosy
<i>Variables</i>	Health Technology	<i>Health Technology</i>	Health Technology
<i>Outcomes</i>	Self-Care	<i>Self-Care</i>	Self-Care

Source: Created by the authors.

The inclusion criteria listed were: studies on the self-care of people with leprosy; full text available in Portuguese, English or Spanish. There was exclusion of guides, handbooks/booklets, articles structured as editorials, literature review, experience reports, theses, dissertations and studies that did not answer the study question.

Two independent researchers conducted the search for articles during October and November 2018, two independent researchers at the following databases: Latin American and Caribbean Health Sciences Literature (LILACS), Hansen and Nursing Databases (BDENF), through the Virtual Health Library Leprosy, at the Medical Literature Analysis and Retrieval System Online (MEDLINE) by the PubMed; at the repository of Scientific Electronic Library Online (SCIELO); at the Cumulative Index to Nursing and Allied Health Literature (CINAHL) and at Web of Science, through the journal portal of the Coordination for Higher Level Personnel Improvement (CAPES). These databases were chosen due to the scope of coverage and their

impact on health scientific production. There was no temporal clipping, because one sought to portray the health technologies applied to patients with leprosy over the years.

The use of MeSH and DeCS terms occurred in function of the selected databases, whose aim was to judiciously meet the goal and design chosen to develop this study. At LILACS, Hansen and BDENF databases, the use of DeCS returned a greater number of articles, whereas, at MEDLINE, SciELO, CINAHL and Web of Science databases, the MeSH terms showed better results.

To systematize the searches, the pre-defined terms that comprised the PVO strategy were crossed, with the help of Boolean operators AND and OR, namely: PVO = Leprosy AND health education OR educational technology AND self-care; PV = Leprosy AND health education OR educational technology; PO = Leprosy AND self-care. This same sequence was followed at databases that used MeSH or DeCS terms. Such crossings returned the data presented in Table 1.

**Table 1** – Articles found at LILACS, BDENF, Hansen Database, SciELO, MEDLINE, CINAHL and Web of Science databases, by crossing the MeSH and DeCS terms. Crato, Ceará, Brazil – 2018

Items	DeCS			MeSH			
	LILACS	Hansen Database	BDENF	MEDLINE	SciELO	CINAHL	Web of Science
PVO	263	137	52	379	34	91	90
PV	263	137	52	379	34	-	-
PO	23	19	8	40	-	-	-

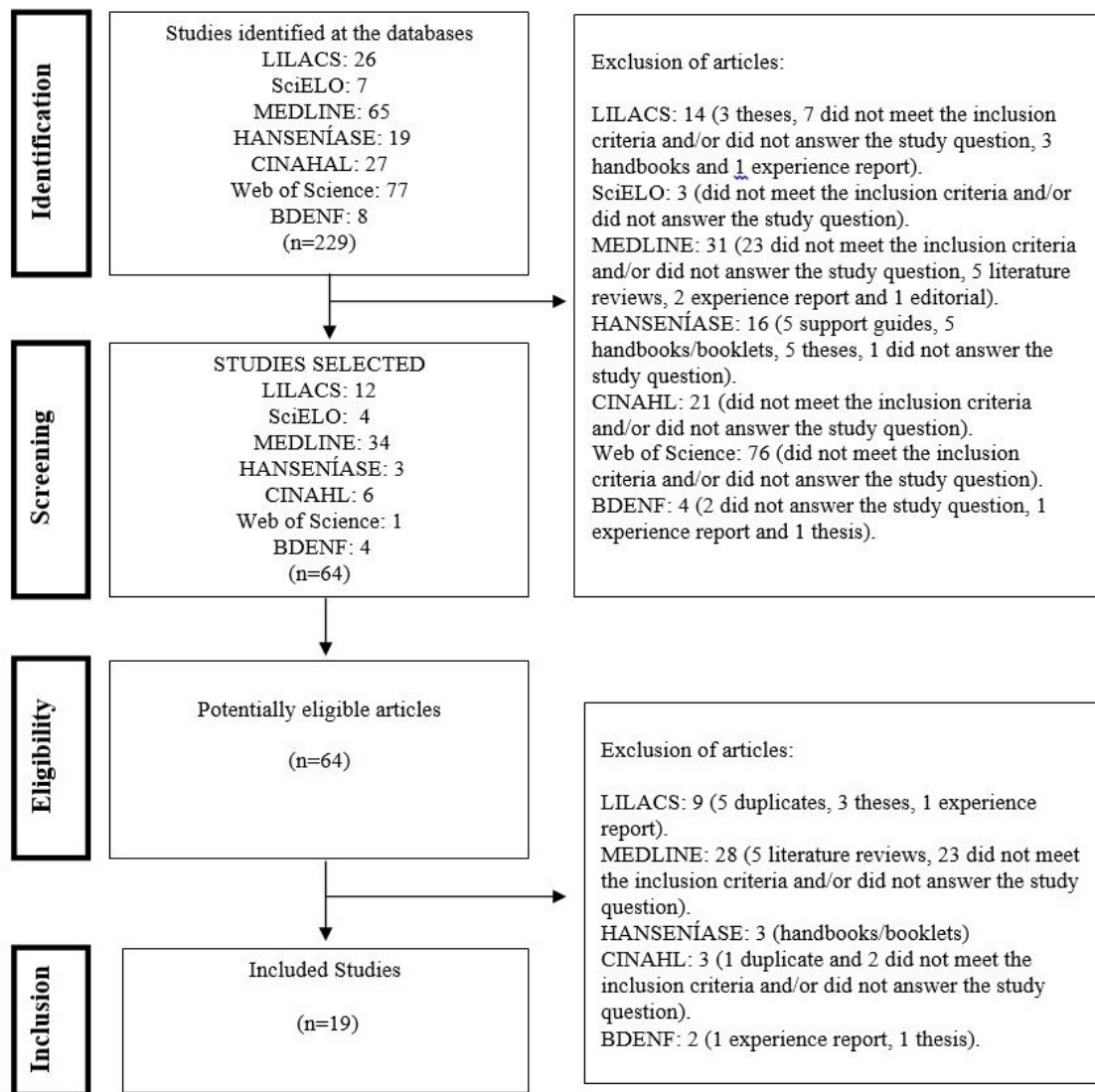
Source: Created by the authors.

PVO = Population, Variables and Outcomes; PV = Population, Variables; PO = Populations, Outcomes.

Also during the search, the following filters were applied: availability to download for free and in article format. In this step, one obtained 26 at LILACS, 19 at Hansen database, 8 at BDENF, 65 at MEDLINE, 7 at SciELO, 27 at CINAHL and 77 at Web of Science, totaling 229 articles.

The first step of refinement occurred by reading the titles and abstracts of the 229 studies. Of these, there was exclusion of those that explicitly did not meet the research scope, resulting in 64 studies: 12 at LILACS, 3 at Hansen Database, 4 at BDENF, 28 at MEDLINE, 4 at SciELO, 6 at CINAHL and 1 at Web of Science.

The second step of the refinement contemplated reading the articles in their entirety, held after the consent of two researchers, which resulted in 3 studies at LILACS, 2 at BDENF, 6 at MEDLINE, 4 at SciELO, 3 at CINAHL and 1 at Web of Science, comprising 19 articles, which comprised the final sample. To facilitate the understanding of the process of search and selection of articles, the flowchart of the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA)<sup>(14)</sup> was used, presented in Figure 1 below:

**Figure 1** – Flowchart of the selection of studies

Source: Created by the authors.

The assessment stage of the studies identified that, according to the methodological approach and following the pyramid of evidence exposed in a study on systematic review<sup>(15)</sup>, one article had level II, 2 articles level III, 15 articles level IV and 1 article level V of scientific evidence.

Data extraction occurred with a form created by the authors, containing bibliometric data on the selected studies, such as authors, year, location, type of study, sample, technology and results, summarized in the next section.

The data relating to the use of health technologies, as well as the implemented strategies, the professionals involved and results obtained were descriptively discussed, in order to provide the reader with a better understanding about the theme.

## Results

The data exposed in Chart 2 summarize the main bibliometric information that characterize the articles analyzed.

**Chart 2** – Characterization of the analyzed studies, according to author, location and year, type of study and sample, technologies and results (continued)

Author	Location/ Year	Type of study/ Sample	Technologies	Results
Lima MCV, Barbosa FR, Santos DCM, Nascimento RD, D'Azevedo SS <sup>(16)</sup>	Brazil  2018	Descriptive study  24 people	Interview  Assistive Technology	The study pointed out that the self-care practices performed on the face, hands and feet of people affected by leprosy are guided and encouraged by the health professionals who accompany them, but showed that the challenges experienced by the interviewees are related to physical, environmental, emotional and social factors, such as lack of interest or time, low family income and difficulties due to the disabilities already installed.
Pryce J, Mablesen HE, Choudhary R, Pandey BD, Aley D, Betts H, et al. <sup>(17)</sup>	Asia  2018	Descriptive study  53 patients	Group meetings  Educational Technology	On average, participants affected by leprosy demonstrated 1.8 times more knowledge of self-care techniques and practiced 2.5 times more frequently than participants affected by Filarial Lymphedema (FL).
D'Azevedo SSP, Freitas EN, Nascimento LO, Santos DCM, Nascimento RD <sup>(18)</sup>	Brazil  2018	Descriptive study  11 patients	Group meetings  Educational Technology	Reduction of physical disabilities, through preventive measures, health education, adherence to self-care and treatment. In addition, these groups increase self-esteem, overcome prejudice and enable the therapeutic bond between patients and professionals.
Morais JR, Furtado ÉZL <sup>(19)</sup>	Brazil  2018	Descriptive study  73 patients	Instrument to assess disabilities  Assistive Technology	Male patients with low education, dimorphic, Virchowian clinical form, with multibacillary classification and the presence of one or more affected nerves were more likely to presenting some degree of physical disability, emphasizing the importance of instruments to assess the disability level and thus subsidize the implementation of disability prevention strategies and, in case of already existing damages, the adoption of measures aimed at avoiding complications, by promoting self-care and improving the quality of life.
Moura EGS, Araújo APM, Silva MCR, Cardoso BA, Holanda MCS, Conceição AO, et al. <sup>(20)</sup>	Brazil  2017	Descriptive study  30 patients	SALSA Instrument/ Self-care evaluation  Assistive Technology	The SALSA Scale is an instrument that measures activity limitation, which prioritizes looking not only at physical disabilities, but also at the individual's functionality. The domains of the SALSA scale showed mild to moderate difficulty in the vast majority, with significant results $p \leq 0.05$ .

**Chart 2** – Characterization of the analyzed studies, according to author, location and year, type of study and sample, technologies and results (continued)

Author	Location/ Year	Type of study/ Sample	Technologies	Results
Maia FB, Teixeira ER, Silva GV, Gomes MK <sup>(21)</sup>	Brazil  2016	Descriptive study  8 patients	Instruments adapted to self-care  Assistive Technology	The use of instruments adapted to routine self-care practices of people with leprosy revealed relevant contributions to the care with this clientele regarding feelings, perceptions and significant content about social, family and individual dimensions and the stigma associated with leprosy.
Galan NGA, Beluci ML, Marciano LHC, Prado RBR, Oliveira NGG, Bonini AG, et al <sup>(22)</sup>	Brazil  2015	Descriptive study  11 patients	Observation  Assistive Technology	There were difficulties to accept the commitment and to incorporate daily practices due to multi-causal factors. The same happened with those with level 1.
Batista TVG, Vieira CSCA, Paula MAB <sup>(23)</sup>	Brazil  2014	Descriptive study  5 women	Drawing workshop  Educational Technology	The results revealed the non-inclusion or disfigurement of hands and feet. There is a lack of integration of these regions with consciousness, causing disruption of body image, which can result from both loss of skin sensitivity and deformity resulting from the disease. The recognition of body image through drawings helps the individual recognize their pain, anguish, hopes and favors the health team with a comprehensive view of the individual with leprosy.
Souza IA, Ayres JA, Meneguim S, Spagnolo RS <sup>(24)</sup>	Brazil  2014	Descriptive study  15 patients	Interviews on self-care  Assistive Technology	When interviewing patients about self-care, the study gave visibility to the vertical model, largely hegemonic in the tradition of public health policies, showing concern with treating only the disease, disregarding the complex relationships surrounding it. Recognizing these limitations and having strategies to transform them in favor of dialogue between the members of the interprofessional team are challenges to advance self-care practices and the empowerment of the person in relation to treatment and illness.

**Chart 2** – Characterization of the analyzed studies, according to author, location and year, type of study and sample, technologies and results (continued)

Author	Location/ Year	Type of study/ Sample	Technologies	Results
de Vries HJC, de Groot R, van Brakel WH <sup>(25)</sup>	Amsterdam 2014	Descriptive study  72 patients	Group lectures on self-care practice  Educational Technology	The study pointed out that group lectures with diabetic patients and former leprosy patients for the self-care practice present divergences. The group of former leprosy patients shows greater adherence, demonstrating that there must be greater interaction between patients in both groups. For diabetic patients, they recognized the comparability with leprosy, due to neuropathic patients, but only 17% showed interest in combined self-care groups.
Duarte LMCPS, Simpson CA, Silva TMS, Moura IBL, Isoldi DMR <sup>(26)</sup>	Brazil 2014	Descriptive study  14 patients	Self-care groups  Educational Technology	Self-care actions were minimally reported by leprosy patients as positive, focusing on lubricating the eyes, using sunscreen, hydrating the skin and wearing shoes.
Leite SCC, Caldeira AP <sup>(27)</sup>	Brazil 2014	Intervention study  62 patients	Traveling workshops  Educational Technology	There was a significant reduction in the scores of depressive symptoms after the proposed intervention ( $p < 0.001$ ) and a positive impact for the psychological ( $p = 0.001$ ), physical ( $p = 0.03$ ) and environmental ( $p < 0.001$ ) domains, but not for social relations ( $p = 0.124$ ).
Pinheiro MGC, Silva SYB, Silva FS, Ataide CAV, Lima IB, Simpson CA <sup>(28)</sup>	Brazil 2014	Descriptive study  16 patients	Educational meetings and workshops  Educational Technology	The results allowed for observing that users' participation in group meetings contributed significantly to the acquisition of knowledge about self-care practices.
Deepak S, Hansine PE, Braccini C <sup>(29)</sup>	Mozambique 2013	Descriptive study  299 patients	Printed booklets and teaching materials  Educational Technology	Most respondents expressed satisfaction about their participation in the groups. In addition to the benefits perceived in relation to their disability (reduced disability).
Palmeira IP, Ferreira MA <sup>(30)</sup>	Brazil 2012	Descriptive study  43 women	Individual meetings  Assistive Technology	The results showed body concepts related to health (past) and disease (present), showing the strength of the aesthetics and functionality of the body, influencing the participation and social insertion of these women.
Cross H <sup>(31)</sup>	Myanmar 2011	Descriptive study  8 patients	Focus group  Educational Technology	The results showed the need for, as well as the importance of implementing preventive measures in order to minimize the deformities/physical disabilities related to leprosy in government programs.



**Chart 2** – Characterization of the analyzed studies, according to author, location and year, type of study and sample, technologies and results (conclusion)

Author	Location/ Year	Type of study/ Sample	Technologies	Results
Rodini FCB, Gonçalves M, Barros ARSB, Mazzer N, Elui VMC, Fonseca MCR <sup>(32)</sup>	Brazil  2010	Intervention study  26 patients	Support handbook for self-care  Educational Technology	The most affected nerves were the ulnar and posterior tibial nerves. Although the disability level and pre-existing deformities persisted, there was a significant improvement in the pain and social aspects of the SF-36 questionnaire, as well as in the muscular function of the hands and feet and in the dryness of the skin.
Sathia-Raj Y, Norman G, Richard J <sup>(33)</sup>	India  2010	Randomized Clinical Trial  50 patients	Lectures, self-care practices and donation of appropriate shoes  Educational and Assistive Technology	Education for self-care resulted in a very high level of knowledge and practice compared to the control area, reaching up to 100% of practice in some aspects.
Silva Júnior FJG, Ferreira RD, Araújo OD, Camêlo SMA, Nery IS <sup>(34)</sup>	Brazil  2008	Case study  1 patient	Nursing Process  Assistive Technology	The individualized nursing process allowed for the study patient to be able to continue the treatment (in relation to the use of medications), in view of obstinacy, as well as the need for supervision of daily doses by a family member, in addition to performing leprosy-focused self-care in a culturally satisfactory way.

Source: Created by the authors.

The results showed that the health actions and applied technologies for self-care promotion in people living with leprosy discussed two types of health technologies<sup>(8)</sup>: educational and assistive.

The educational technologies contemplated the construction of a self-care handbook, primers, printed booklets, video, educational lectures, training and support groups that emphasized the construction of knowledge about the self-care with quality, in order to guarantee autonomy and safe care to the clientele<sup>(17-18,23,25-29,31-33)</sup>. They also involved the perception, comprehension and plays as strategies for promoting self-care. These had a positive impact in relation to the assessment of their application, since they had facilitated and broadened the understanding

of the patients about the disease and self-care practices.

The assistive technologies that stood out were: periodic assessment of the self-care practice and intervening factors; promotion of acceptance of the body image regarding physical deformities arising from leprosy, once the actions and reactions indicated the care modes; application of the SALS scale to evaluate physical and functional status of the eyes, hands and feet; reflections on the contributions of assistive technology and the transcultural approach, as well as the use of the nursing process in care provision<sup>(16,19-22,24,30,33-34)</sup>.

In relation to clinical characteristics of users of health services to which these technologies were applied, the greater number of patients under

treatment of leprosy presented Multibacillary Operational Classification and more severe forms of the disease (Dimorphous and Virchowiana), responsible for the physical disabilities and permanent deformities<sup>(18-19,22,24,28,32,34)</sup>.

As identified in the studies, the following professionals used the educational and assistive technologies in the care with leprosy patients: nurses, physiotherapists, occupational therapists and social workers<sup>(26,28,34)</sup>. The care occurred mostly at the secondary health care level<sup>(18-19,23-24,26,28,30,32)</sup>.

## Discussion

The main health technologies for self-care promotion in leprosy patients identified in the studies were educational and assistive. They used several strategies and/or materials to prevent and reduce disabilities and/or physical deformities.

In this perspective, the technologies include educational actions in leprosy, which must be horizontal and supported by an expressive, edifying, dialogical, communicative and collective-action model for the patient's empowerment in their adherence to self-care practices and, consequently, for the prevention of disabilities<sup>(19)</sup>.

The educational strategies, especially the therapeutic workshops, are meetings of lives among people, promoting freedom and coexistence of the different. This is an important form of treatment, which seeks to build body resourcefulness, consummation of successful practices and collective activities<sup>(35)</sup>. These have the potential to assist in psychological rehabilitation of institutionalized patients due to leprosy<sup>(27)</sup>.

Also in the context of educational technologies, a study of educational intervention conducted in a Basic Health Unit in the state of Minas Gerais presented health education as an important strategy for the care with leprosy people. This, when directed and applied, can contribute to a satisfactory increase of knowledge, favoring the prevention of physical disabilities<sup>(36)</sup>.

The health education itself is a technology. Its actions promote knowledge and empower patients about self-care practices. However, these actions need to be monitored and evaluated by health professionals to ensure their correct and efficient accomplishment. Thus, the assistive technologies for monitoring and evaluation are essential for the control and prevention of disabilities.

The educational technologies used in the studies allowed for approaching the other, to discuss health promotion actions in conjunction, which, in their majority, proved to be effective to reduce deformities and physical disabilities caused by leprosy. These actions and technologies revealed nuances that health education strategies should take to encourage and promote the construction of knowledge about self-care of people living with leprosy.

The educational technologies for the promotion of self-care in people with leprosy were used aiming to encourage awareness about the range of existing risks against the physical integrity and encourage self-care practices, with the transformation of attitudes. Furthermore, they stimulated the empowerment and autonomy, seeking to recognize a problem and work to ensure overcoming it.

In relation to changes in the prevention, control and treatment of leprosy, various forms of technologies have been used in the health context and have provided positive results, through an exchange of experiences and the search for new forms of care. These changes were identified in studies with support groups for people with leprosy that used printed booklets and teaching materials about self-care. Such aspects were evidenced in a study<sup>(29)</sup> in which most participants (86%) obtained reduction of physical disabilities, besides presenting satisfaction in participating in the groups.

The promotion of self-care practices has, at its root, the proposal to encourage patients' autonomy in taking care of themselves. They base on the exchange of knowledge and experiences, favoring the exercise of citizenship and the protagonism in health<sup>(37)</sup>.

In this study, the Assistive Technologies also emerged, known as devices that provide the intercession of care processes. They are carried out by professionals with the target public (patients/users) from health systems at the three complexity levels<sup>(9)</sup>.

Among the technologies presented, the observation, the interview and the use of instruments to assess self-care constituted key strategies for the identification of the health needs of the population.

Other assistive technology used was the Nursing Process (NP). The analyzed articles highlighted these professionals as those linked to actions for self-care promotion in patients with leprosy.

The Nursing consultation becomes paramount in the assistance to the leprosy patient, as it allows for the professional establishing a therapeutic relationship with the patient. Moreover, it enables recognizing the health and life conditions that will determine the demands and the profiles of processes that involve health and illness of the service users<sup>(38)</sup>.

The NP, here understood as an assistive technology, once it is a methodological tool that guides the nursing care, contributes to organizing and promoting specific care strategies to meet the demands of the clientele individually<sup>(39)</sup>. In the care context, the NP is manifested as a care methodology that provides the optimization of assistance, favoring the systematization of nursing actions that allow for achieving the expected results<sup>(40)</sup>.

The Nursing care directed to the patient with leprosy must be supported by the health needs and demands evidenced by users of the services. In the present study, since most participants were classified as multibacillary, there becomes evident the need for using educational, assistive and managerial technologies to promote self care/prevent disabilities and, consequently, improve the quality of life of this population.

A limitation of the study is the absence of studies addressing managerial technologies directed to the self-care promotion in patients with leprosy. In this sense, there becomes evident the need for studies addressing this topic.

## Conclusion

The findings show that the educational and assistive technologies are important for the self-care practice in patients with leprosy. The use of educational technologies is relevant for reducing physical disabilities caused by leprosy. Nevertheless, the development of technologies accessible to patients is essential, in order to assist in the prevention of leprosy, so that they can break the chain of transmission.

The assistive technology allows for expanding the working process of the health professional, keeping the bond, the interaction and the shared construction of alternatives that improve the quality of life and health of this population. In this sense, health professionals, especially nurses, need to incorporate health technologies in the work environment, through continuous training and development of researches revealing and redefining health practices. In addition to articulating actions between the various healthcare levels to ensure a quality care and a self-care developed by the person under treatment of leprosy.

This study contributes to the identification of the main types of health technologies applied to people with leprosy, aiming to intensify their use self-care promotion and prevention of physical disabilities. It also contributes to expanding the nursing actions in the self-care practice, in order to minimize the damage caused by the disease.

## Collaborations:

1 – conception, design, analysis and interpretation of data: Jeane Lima Cavalcante, Samyra Paula Lustoza Xavier, Jennifer Ferreira Figueiredo Cabral, Maria Corina Amaral Viana and Edilma Gomes Rocha Cavalcante;

2 – writing of the article and relevant critical review of the intellectual content: Jeane Lima Cavalcante, Samyra Paula Lustoza Xavier, Jennifer Ferreira Figueiredo Cabral, Maria Corina Amaral Viana and Edilma Gomes Rocha Cavalcante;

3 – final approval of the version to be published: Jeane Lima Cavalcante, Samyra Paula Lustoza Xavier, Jennifer Ferreira Figueiredo Cabral, Maria Corina Amaral Viana and Edilma Gomes Rocha Cavalcante.

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