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REVIEW PROTOCOL

Effects of conservative treatment of urinary incontinence in women with HTLV: systematic review protocol*

Efeitos do tratamento conservador da incontinência urinária em mulheres com HTLV: protocolo de revisão sistemática*

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ABSTRACT

Objective: to evaluate the effects of conservative treatment in women with urinary incontinence by HTLV. **Method**: The *Joanna Briggs Institute* methodology was used. Inclusion criteria: conservative, non-invasive, and non-drug therapies for urinary incontinence in adult women with HTLV and their respective synonyms, associated with the Boolean AND and OR descriptors, in Portuguese, English, and Spanish, without time limitation. The search and evaluation will be done by two independent researchers from the databases: LILACS and SciELO, Embase, MEDLINE/PubMed, *Scopus, Web of Science, CINAHL,* and the *Cochrane Library database.* The quality and risk of bias will be evaluated through evaluation instruments to be chosen according to the methodology of the studies. **Results:** they will follow the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA). Described in narrative, imagery, and tabular form. **Conclusion:** it will address significant findings and implications for the scientific environment.

Descriptors: Urinary Incontinence; Human T-lymphotropic virus 1; Conservative Treatment.

RESUMO

Objetivo: avaliar os efeitos do tratamento conservador em mulheres que apresentam incontinência urinária pelo HTLV. **Método:** utilizado a metodologia do *Joanna Briggs Institute*. Critérios de inclusão: tratamentos conservadores, não invasivos e não medicamentosos para incontinência urinária em mulheres adultas com HTLV e seus respectivos sinônimos, associados aos descritores boleanos AND e OR, nos idiomas português, inglês e espanhol, sem limitação temporal. A busca e a avaliação serão realizadas por dois pesquisadores independentes, a partir das bases de dados: LILACS e SciELO, Embase, MEDLINE/PubMed*, Scopus, Web of Science, CINAHL* e no banco de dados da *Cochrane Library.* A avaliação da qualidade e risco de viés será por meio de instrumentos de avaliação, a ser escolhido conforme a metodologia dos estudos. **Resultados:** seguirão o *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA). Descritos de forma narrativa, imagética e tabular. **Conclusão:** abordará achados importantes e as implicações para o meio científico.

Descritores: Incontinência Urinária; Vírus Linfotrópico T Tipo 1 Humano; Tratamento Conservador.

INTRODUCTION

Human T-lymphotropic virus 1 (HTLV-1) was the first retrovirus to be discovered, and there are no specific medications to cure it. Present in countries such as Japan, Melanesian Islands, Caribbean Islands, African Ecuadorian regions, Middle East and South America, especially Brazil. In the latter country, the prevalence of infected people is around 0.5 to 1% of the population[(1)]. For example, these numbers can rise to 1.76% in Bahia, Brazil. The affected women correspond to 80% of the cases diagnosed in 2020, of which 28.9% are pregnant[(2)].

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Pelvic dysfunctions, especially vesical alterations, caused by HTLV occur due to chronic inflation and diffuse degeneration of the central nervous system and spinal cord. It shows signs of demyelination of peripheral nerves, sites of virus predilection, and significant neurological disorders[3]. Thus, infection by the virus causes several complications, such as Neurological Dysfunction of the Lower Urinary Tract (NLUTD), whose severity is related to the nature, extent, and progression of neurological disease[4].

The person affected by HTLV may present changes in bladder filling as detrusor hyperactivity, accompanied by symptoms of vesical urgency and/or urinary incontinence by urgency. The appearance of alterations in vesical emptying is also noteworthy: bladder sphincter dyssynergia and detrusor hypo contractility, as well as symptoms of incomplete emptying and urinary incontinence by overflow[5].

Urinary symptoms may arise before the clinical manifestations of HTLV or the diagnosis of infection. A retrospective cohort study conducted in Brazil in 2019, which evaluated 175 people (most women diagnosed as asymptomatic), pointed to the clinical manifestation of isolated symptoms of bladder disorders[4], which requires specialized attention and investment in therapy in terms of treatment measures.

The conservative, non-invasive, and non-surgical treatment is divided into conservative pharmacological and non-pharmacological treatment, the latter comprises actions of the nurse who develops interventions under the habits of life, modifying behaviors, which include lifestyle changes, reduction in the consumption of citrus foods, carbonated drinks, coffee and pepper, routine adoption with regular times for water intake, urination, and evacuation, strengthening and/or relaxing exercises of pelvic floor muscles, the use of transcutaneous and intracavitary electrostimulation, *biofeedback and* vesical catheterization of relief[6]. In this sense, it emphasizes the direct implication in the practice of the nurse, who can intervene and achieve satisfactory results.

When considering that the clinical decision for the therapeutic option is based on the scientific evidence of its responses, it is necessary to identify such evidence and fill the gaps in scientific knowledge on the subject. Thus, it emphasizes the lack of a review or consensus on the conservative treatment of bladder dysfunctions in people with HTLV, which is justified by the accomplishment of this study. It is imperative to present the scientific evidence used to treat women with UI by HTLV and the effects of interventions to systematize specific care actions for women according to the symptoms in question. The question that will guide this research is: what are the effects of conservative treatment in women with urinary incontinence by HTLV? To this end, the general objective of the study is to evaluate the effects of conservative treatment in women who have urinary incontinence by HTLV and specific goals: to assess the types of treatment/interventions in women who have urinary incontinence by HTLV and to evaluate the treatments for improving urinary incontinence in women who have urinary incontinence by HTLV.

METHOD

Systematic review protocol with a methodology based on *Joanna Briggs Institute* (JBI) [7]. Registered on the *National Institute for Health* Research platform at *the International PROSPECTIVE Register of Systematic* Reviews (PROSPERO), under the ID: 307183 with the title *Conservative treatment of urinary incontinence in women with T-cell lymphotropic virus type 1: systematic* review"[8].

For the construction of the research question of this study, the PICO strategy was developed, where "c" does not apply since it is not intended to buy the types of treatments, just know them, as presented in Figure 1.

Inclusion criteria, exclusion of studies

Inclusion criteria are considered, scientific articles that address conservative treatments for urinary incontinence in adult women with HTLV. The choice only for articles is justified by the fact that they are results of intervention research with high methodological rigor, producing scientific evidence that generates clinical recommendations corroborating this protocol's objective. Government agency documents will be used to discuss the results to confront what the evidence presents and what is currently recommended as guidelines.

As exclusion criteria, studies on pregnant women were disregarded since pregnancy changes hormonal levels, modifies pelvis structures, and favors the appearance of other urinary complaints not necessarily related to the virus. Also excluded are studies that address drug treatment and surgical procedures since they are invasive intervention measures and that do not compare with conservative interventions.

PICO	Strategies
P : Person	Women with IU by HTLV
I : Intervention	Conservative treatment
C : Comparison	Not applicable
O : outcome	Control, improvement, or cure of UI

Figure 1 - PICO strategy for building the research question. Salvador, BA, Brazil, 2022

Search strategies

We adopted the descriptors urinary incontinence, Human T-lymphotropic virus 1, and conservative treatment and their respective synonyms, associated with the Boolean AND and OR descriptors, in Portuguese, English, and Spanish for the VHL database and only in English for the other databases. There was no restriction of the year of publication and methodological drawings.

The terms "*tratamento conservador*" and "*conservative* treatment" are contained in the descriptors of DESC/MESH and EMTREE and are present in titles and summaries of studies that address non-surgical, non-invasive, non-drug treatments. Thus, this term comprises the types of treatments adopted as conservatives. A previous search using care and intervention did not identify studies in the Boolean search.

The collection and selection of the articles were carried out through access to the CAPES portal using the user and password of the Federal University of Bahia, in the databases of the Virtual Health Library (VHL), in the LILACS and SciELO databases, in the databases of the Virtual Health Library (VHL). in addition to the base that contains studies of the databases MEDLINE/PubMed, *Scopus, Web of Science, CINAHL and* the *Cochrane Library database.* We used the Mendeley platform as the reference manager, directly importing the database studies.

In Figure 2, the Boolean descriptors and types of search were constructed, selected, and validated together with the librarian of the Center of Care and Training of the University Library of Health of the Federal University of Bahia and portray the mapping of search strategies in each database.

Selection and extraction of studies

The articles will be selected by two individual and independent reviewers, who will access the databases on scheduled days with stipulated deadlines. It will be performed the reading of the titles, followed by the selection of the studies, then the abstracts will be read to extract those that are not within the inclusion criteria. A third author, in possession of the references selected by each reviewer, will use the *Mendeley reference manager* and may exclude the duplicities found between both reviewers to read finally, in total, the studies that will be selected to compose the sample of this review.

One of the criteria of RS is the rigor in selecting articles. At least two experts on the subject in question must be present to properly filter the studies independently, and a third *expert* can act as a judge to resolve disagreements and compile the studies found.

Subsequently, the data will be synthesized qualitatively in a spreadsheet containing detailed information within the objectives proposed by the review, thus, it was classified according to the names of the authors, year of publication, country, objectives, study design, number of selected participants, follow-up time, description of the proposed treatments, instruments/tools used by the authors to evaluate the effects of treatments and the effects of treatments.

In this stage, it is worth noting that this spreadsheet will only be complete after reading all the studies, defining the important themes among them, and identifying common points. Thus, it is a construction that changes constantly until the completion of the reading of all the studies.

Risk of bias and quality assessment

Instruments and forms developed specifically for this purpose evaluate the quality of the studies. Exhaustive reading and searching for these instruments conclude when one finds one that matches the type of study found.

Several instruments are validated and indicated, such as those on the *Joanna Briggs* Institute website[7] and CASP (*Critical Appraisal Skills* Program)[9], which have evaluation tools for various methodological designs, in addition to the *Cochrane* Library website[10], there are

Bases	Search strategies
BVS: LILACS and SciELO	("incontinência urinária" OR "incontinencia urinaria" OR "urinary incontinence" OR "incontinence, urinary") AND ("HTLV" OR "HTLV-I" OR "vírus linfotrópico t tipo 1 humano" OR "vírus 1 linfotrópico t humano" OR "virus linfotrópico t tipo 1 humano" OR "human t-lymphotropic virus 1") AND ("tratamento conservador" OR "conservative treatment" OR "tratamiento conservador" OR "conservative management" OR "behavior therapy" OR "treatment" OR "therapy" OR "conservative management") AND ("mulher" OR "mujer" OR "women")
MEDLIN/ PubMed	("human t-lymphotropic virus 1" OR "HTLV-1") AND ("urinary incontinence" OR "incontinence, urinary") AND ("conservative treatment" OR "conservative management" OR "behavior therapy" OR "treatment" OR "therapy")
EMBASE	('human t-lymphotropic virus 1'/exp OR 'human t-lymphotropic virus 1' OR (('human'/ exp OR human) AND 't lymphotropic' AND ('virus'/exp OR virus) AND 1) OR ('htlv'/exp OR 'htlv 1') AND ('urine incontinence'/exp OR 'urine' AND incontinence') AND ('treatment' OR 'therapy')
SCOPUS	(urine AND incontinence)) AND (human AND t-lymphotropic AND virus 1) AND (treatment)
Web Of Science	("human t-lymphotropic virus 1") AND ("urinary incontinence") AND ("treatment")
CINAHL	("human t-lymphotropic virus 1") AND ("urinary incontinence" OR incontinence, urinary") AND ("treatment")
Cochrane Library	("human t-lymphotropic virus 1" OR "HTLV") AND ("urinary incontinence") AND ("treatment")

Figure 2 - Search strategies used by databases. Salvador, BA, Brazil, 2022

instruments for most randomized clinical trials. In this section, some of the most used are cited: in randomized and controlled studies, CASP (*Critical Appraisal Skills Programe*) Randomized Controlled and Rob 2.0 (*Revised Cochrane risk-of-bias tool for randomized* trials) are used. The tool recommended by Cochrane for non-*randomized intervention studies is ROBINS (Risk of Bias in Non-randomized Studies – of Interventions*). In 2018, Panda et al.[11] modified an existing scale and was then a reference for mixed studies. For prevalence studies, *The Joanna Briggs Institute (JBI) Critical Appraisal Checklist for Studies Reporting Prevalence and* case series *JBI Critical Appraisal Checklist for Studies Reporting Case Series.* Case-control studies using the Newcastle Ottawa Scale and CASP *Case* Control; cohort study The Newcastle Ottawa Scale, ROBINS E (*Risk of Bias in Non-Randomized Studies - of Exposures*) and CASP Cohort Study; for diagnostic accuracy studies, Quality Assessment of Diagnostic Accuracy Studies (QUADAS), Standards for Reporting Studies of Diagnostic Accuracy (STARD) and CASP Diagnostic Study and Economic Evolution CASP Economic Evaluation[9-11].

Figure 3, below, presents the tools to evaluate the quality of the studies according to their methodologies.

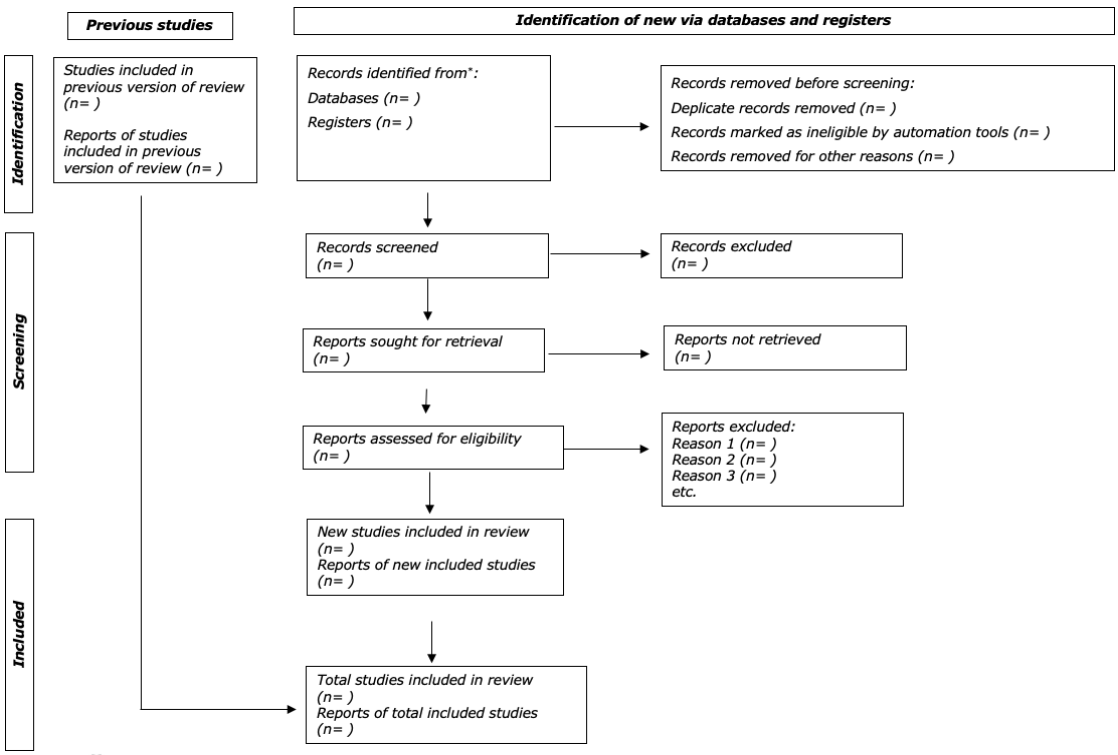
RESULTS

The results will be presented following the steps recommended by Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA), which contains 27 items and a flowchart with four steps: identification, selection, eligibility, and inclusion[13]. THE PRISM organizes the process of identifying and selecting studies, and Figure 4 shows in a simplified and clear way the path taken until reaching the selected studies [10,12].

The results will be presented in the figures shown here, as well as tables illustrating them. Moreover, a text reflecting on the results found and a forceful discussion within the objective proposed by this RS will be written.

Methodological Design	Tools
Randomized clinical trial	Rob 2.0 CASP *Randomized Controlled*
Non-randomized Invention	ROBINS-I
Mixed (quantitative and qualitative)	Thomas et al, 2003/ Panda et al 2018
Prevalence	*JBI Critical Appraisal Checklist for Studies Reporting Prevalence*
Case series	*JBI Critical Appraisal Checklist for Studies Reporting Case Serie*
Case control	*Newcastle Ottawa Scale* CASP *Case Control*
Cohort	*Newcastle Ottawa Scale* ROBINS E CASP *Cohort Study*
Diagnostic accuracy	QUADAS-2 STARD CASP *Diagnostic Study*
Economic evolution	CASP *Economic Evaluation*

Figure 3 - Instruments for assessing risk of bias. Salvador, BA, Brazil, 2023



Source: Mckenzie, 2020
Figure 4- PRISMA Flowchart Model to be followed. Salvador, BA, Brazil, 2023

CONCLUSION

In conclusion, the important findings and implications for the scientific environment and the social community responding to the proposed objective will be reported, besides describing if there were limitations in the studies evaluated, as well as in the built RS. Because it is not a study directly with human beings, the need for approval in the ethics committee is dismissed.

*Material extracted from the doctoral thesis entitled "Nursing care protocol for women with urinary incontinence caused by human T-cell lymphotropic virus: in the light of the self-care theory," presented to the Graduate Program at the Federal University of Bahia, Salvador, BA, Brazil, in 2022.

CONFLICT OF INTERESTS

The authors have declared that there is no conflict of interests.

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