REVIEW ARTICLE

Health Information and Libraries Journal | CILIP | HLG   **WILEY**

Finding and evaluating randomised controlled trials in nursing conducted by Spanish research teams: A scoping review

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[The copyright line for this article was changed on 13 December 2022 after original online publication]

Abstract

Background/objectives: To identify and assess the main characteristics and the potential risk of bias of randomised controlled trials (RCTs) in nursing conducted by Spanish research teams.

Methods: Scoping review of an electronic search in three major databases (date of search: October 2021). For the eligible studies, both descriptive data, and data to assess the potential risk of bias, were collected and analysed.

Results: Of 3391 references retrieved, 199 were eligible. These RCTs were published in 122 journals, most of them in English (101, 82.1%) and were included in the Journal Citation Report (JCR) (107, 87.7%). Moreover, 32 (26.2%) of those included in the JCR were classified under nursing. Two thirds (81, 66.4%) of the journals followed the CONSORT guidelines. A total of 65 RCTs (33.7%) had a high overall risk of bias.

Discussion: Most of the identified RCTs were published in journals not specific to nursing and in English language. Also, shortcomings in RCT design and reporting were observed despite recommendations to adhere the CONSORT guidelines.

Conclusion: Comprehensive identification of RCTs in nursing may require searching in journals other than nursing-related. RCTs from Spanish research teams are more likely to be published in international journals published in English. CONSORT should be strongly advised to encourage proper design and reporting of RCTs.

KEYWORDS
evidence-based nursing (EBN); literature searching; nurses; nursing; randomised controlled trial (RCT); review, scoping

BACKGROUND

Randomised controlled clinical trials (RCTs) are important for decision-making in clinical practice and public health for several reasons. A RCT is a planned experiment that aims to evaluate the efficacy of one or more health, medical or surgical interventions. They are conducted with methodological rigour to assess the effects, benefits and harms that therapeutic interventions, drugs, devices or health techniques may cause in humans (Bonfill et al., 2013; Dickersin et al., 1994). They are considered the gold-standard research design and have become the foundation for systematic reviews and other evidence synthesis studies (Villanueva et al., 2018), which, in turn, are the scientific cornerstone for health care decision-making (Sackett et al., 1996).

As described in multiple studies (Arevalo-Rodriguez et al., 2018; Gutarra-Vilchez et al., 2016; Loezar et al., 2018; Martí et al., 1999; Villanueva et al., 2018) identifying RCTs is challenging for three main reasons: the term RCT was included in the major health science databases (MEDLINE and EMBASE) in the 1990s; previous studies may be indexed under wider categories. In addition, these databases include primarily English-language journals, representing a potential dissemination bias of studies published in Spanish. Finally, the study methodology is not always clear enough, making it difficult to identify and index a study as an RCT.

Nursing, like all health science disciplines, must be based on scientific evidence. Although scientific production has increased significantly in recent years (Adams et al., 2018; Baldi et al., 2014; Devos et al., 2018; Guo et al., 2014; Hodgson et al., 2014; Munday et al., 2020; Pham et al., 2021) it remains low compared to other disciplines (Alonso Coello et al., 2004; Jiménez Hernández et al., 2007).

Several studies have identified and analysed the methodological quality of nursing-related RCTs in English in areas such as paediatrics, wound management or oncology (Adams et al., 2018; Baldi et al., 2014; Cullum, 1997; Devos et al., 2018; Guo et al., 2014; Hodgson et al., 2014; Munday et al., 2020). To our knowledge, no similar studies have been conducted for nursing RCTs published in Spanish or by authors from Spanish institutions. Also, being aware of this body of evidence is relevant in that it may lead to a better understanding of the strengths and weaknesses of these studies, as well as of the most appropriate approaches and strategies to identify them when conducting evidence synthesis studies (Neimann Rasmussen & Montgomery, 2018; Pardo, 2017; Stern & Kleijnen, 2020).

Key Messages

- Most randomised controlled trials (RCT) conducted by Spanish research teams were published in journals in English language and not necessarily specific to nursing.
- Nursing researchers should adhere to the CONSORT statement when reporting results of RCTs to ensure methodological quality and proper reporting.
- New RCTs identified in this study that were not available in Cochrane's CENTRAL database, were submitted through the Cochrane Register of Studies (CRS), therefore improving availability, identification in electronic literature searches, and potential inclusion in evidence synthesis studies.
- Further identification of RCTs in nursing conducted by Spanish teams may require hand-searching non-indexed journals in nursing and other medical fields.

OBJECTIVES

The aim of this study was to identify and assess the main characteristics and sources of bias in nursing RCTs conducted by Spanish research teams.

METHODS

A scoping review consisting of a systematic and comprehensive search of RCTs in nursing was carried out. The selected articles were analysed descriptively, and a risk of bias assessment was performed.

An electronic search was conducted in three major databases: MEDLINE (PubMed), Cumulative Index for Nursing and Allied Health Literature (CINAHL, EBSCOhost) and Cochrane Central Register of Controlled Trials (CENTRAL), with no starting date restrictions, and up to October 2021 (updated search). The search strategy is presented in Appendix A.

Eligibility criteria

- RCTs, as defined by the Cochrane Collaboration (J. [Ed] Higgins & Green, 2011):

1. trials that include human subjects only; randomisation units could be individuals, groups, organs, or body parts;
2. the study must be prospective;
3. studies that compared two or more treatments or interventions with each other (one of which may be a control/placebo or no treatment group);
4. studies in which treatment allocation is randomised and/or blinded (blinding of patients, health care staff or outcome assessors).

- Study led by nurses or other nursing care professionals in any setting (primary care, hospital, community, schools, universities, residential or day centres) and in any population.
- Research in which the first author or contact author is affiliated to a Spanish institution (university, research centre, hospital, etc.).
- Studies not meeting any of these criteria were excluded.

Data collection

The selection of studies was carried out in two phases: a first screening of titles and abstracts of the retrieved references, independently by two investigators. Eligible studies were then reviewed in full text, focusing on the methods section, also in duplicate and independently by two investigators. In both cases, discrepancies were resolved by consensus or by consulting another investigator.

For each eligible RCT we recorded the following information: author name, year of publication, study title, journal name, study objective and type, scope, year of study start and end, and number, age and sex of participants, and number of dropouts or missing. For the journals that published eligible RCTs, we recorded the following: country, main language, indexing databases, impact factor, quartile, and open access publication status. We also revised the author guidelines for RCTs on each journal website to determine whether they explicitly stated their adherence to CONSORT (Schulz et al., 2010). To establish these characteristics, the Journal Citation Report (JCR) and *Matriz de información para el análisis de revistas* (MIAR) were consulted (Equipo MIAR, 2021). All extracted data were input into an Excel spreadsheet.

For the overall risk of bias, five domains from the Cochrane Collaboration ROB tool were assessed: sequence randomisation, random sequence concealment, blinding of personnel and/or participants, blinding of outcome assessment and reporting reasons for missing data, as well as the percentage of missing data for all intervention groups. To classify the overall risk as high, low, or unclear, the authors created a flow chart for each domain.

Ethical considerations

Due to the nature of the study and the fact that it did not deal with patient personal data, ethics committee approval was not required.

Data analysis

A descriptive analysis of the data was performed. Quantitative variables were described with central tendency and dispersion measures. Qualitative variables were described with relative and absolute frequencies and percentages. Data were processed using the statistical package SPSS© (v.25).

## Validity and reliability/rigour

The search strategy was designed by an experienced researcher from the Iberoamerican Cochrane Centre (CCIb) (Barcelona, Spain). Study selection and data extraction were done in duplicate and independently by two researchers. Researchers received training in data extraction and risk of bias assessment of RCTs and were assisted during the process of data collection. Check for discrepancies in the extracted data was carried out by two authors who were blinded with regards to the data collection researchers. To do so, they examined the corresponding RCTs or addressed the people in charge of the data extraction. Finally, the risk of bias assessment was done using an adapted version of the Cochrane Collaboration's risk of bias assessment tool (RoB assessment tool) (J. P. T. Higgins et al., 2011).

RESULTS

The study was conducted between November 2018 (protocol and first search) and October 2021 (updated search). The electronic search yielded 3391 articles published between 1989 and October 2021. After removing duplicates ($n = 593$), the first screening (by title and abstract) identified 474 potential RCTs. Following full-text assessment, 199 RCTs in nursing were finally included (see Figure 1).

Characteristics of the identified journals

The 199 RCTs identified were published in 122 different journals, of which 82.1% ($n = 101$) are journals that publish original articles in English and 17.9% ($n = 22$) in Spanish. Of the total number of journals analysed, 87.7% ($n = 107$) were listed in the Journal Citation Report
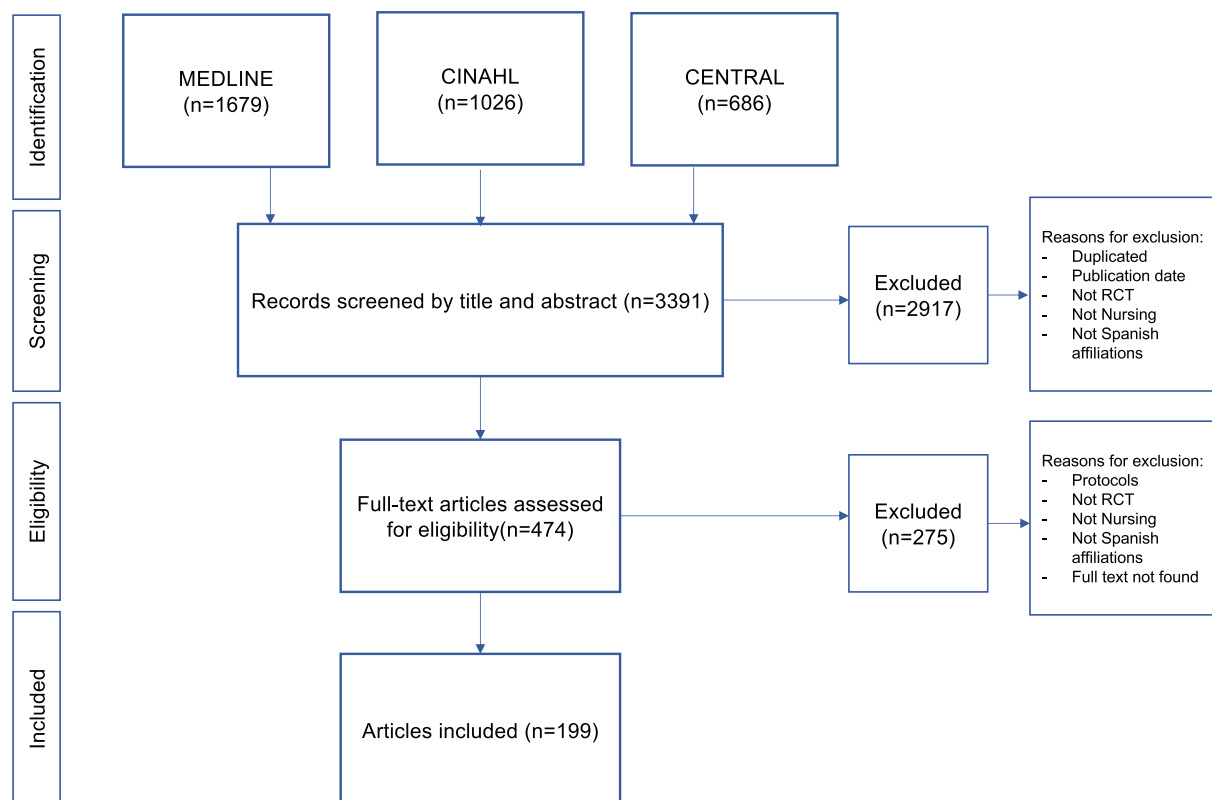
FIGURE 1 PRISMA flowchart for the process of identifying and selecting the studies included in this review [Colour figure can be viewed at wileyonlinelibrary.com]

(JCR) and 22.1% ($n = 27$) were open access journals. Thirty-two journals (26.2%) were classified under JCR nursing category. Regarding adherence to CONSORT, 66.4% ($n = 81$) explicitly stated in their guidelines that authors should use the CONSORT checklist for RCT reporting (Schulz et al., 2010).

The three countries with the highest number of journals containing nursing RCTs were the United States ($n = 42$; 34.1%), the United Kingdom ($n = 38$; 30.9%) and Spain ($n = 21$; 17.1%). Five (23.8%) of the Spanish journals were not indexed in MEDLINE and just 52.4% ($n = 11$) could be found in Journal Citation Reports (JCR). Twenty-nine percent ($n = 6$) of the Spanish journals and 29% ($n = 11$) of the UK journals were open access.

The Spanish journal *Enfermería Clínica* published the highest number of nursing RCTs, at 14 (7.0%). The journal with the highest impact factor in which an eligible RCT was published was the British Medical Journal, with an impact factor of 30.313 (JCR) (see Table 1 for more details).

Characteristics of the randomised controlled trials

The oldest RCT identified was a 1993 publication in the journal 'Tubercle and Lung Disease' which is no longer active under this name. Figure 2 shows the trend in published nursing-related RCTs from 1993 to 2021 in 4-year periods. Over time, there was an increasing trend in the publication of RCTs in nursing, and a mean of seven articles was published per year. 2014 and 2015, and 2018 accounted for the publication of most RCTs in nursing.

Along with the sustained increase in the number of publications, the percentage of RCTs published in English-language journals also increased. The period between 2019 and 2021 had the highest percentage of studies published in English (89.2%) (see Figure 3).

Half of the RCTs published were multicentre studies ($n = 100$, 50.3%). The most common settings where RCTs were conducted were hospitals ($n = 88$, 44.2%) and primary care centres ($n = 69$, 34.2%). The age of participants was reported in 88.9% ($n = 177$) of the selected RCTs. Regarding gender, women accounted for 54.2% ($n = 40,961$) of the total number of participants.

The mean length of the studies was 1.41 years (SD = 1.24) and the mean time between study completion and publication was 2.78 years (SD = 1.66). Of all the eligible studies, 92.5% ($n = 184$) compared the intervention with an explicit control group identifiable in the article, 4.5% ($n = 9$) compared their main intervention to a second type of intervention not identified as a control group or compared with doing nothing, and in 3.0%

TABLE 1 Characteristics of identified journals, by country (n = 122)[a]

Journal country	n (%)	Language (%)		Indexed (%)							Included in JCR (%)	Open access (%)	CONSORT adherence (%)
		English	Spanish	MEDLINE	SCOPUS	EMBASE	CINAHL	SCIE	DOAJ	DIALNET			
Australia	2 (1,6)	100		100	100	100	100	100	0	0	100	0	100
Brazil	1 (0,8)		100	100	100	100	100	100	100	0	100	100	100
Canada	2 (1,6)	100		100	100	100	50	100	100	0	100	100	0
France	1 (0,8)	100		100	100	100	0	100	100	0	100	100	100
Germany	3 (2,5)	100		100	100	100	100	100	0	0	100	0	0
Ireland	3 (2,5)	100		100	100	100	66.7	100	0	0	100	0	100
New Zealand	2 (1,6)	100		100	100	100	0	100	50.0	0	100	50.0	50.0
Spain	21 (17,2)		100	76.2	90.5	81.0	42.9	52.4	28.6	100	52.4	28.6	71.4
Switzerland	3 (2,5)	100		100	66.7	66.7	0	66.7	66.7	0	66.7	66.7	100
The Netherlands	4 (3,3)	100		100	100	100	50.0	100	0	0	100	0	25.0
United Arab Emirates	1 (0,8)	100		100	100	100	0	0	0	0	0	0	100
United Kingdom	38 (31,1)	100		100	97.4	97.4	84.2	97.4	28.9	5.3	100.0	28.9	73.7
United States of America	41 (33,6)	100		97.6	97.6	95.1	85.4	87.8	4.9	26.8	92.7	4.9	61.0

[a]Total number of journals = 122. The percentage in each cell is calculated for the total per country.

Note: The bold values in the "n" column are the three countries of origin of the largest number of journals. Bold values on the final column (CONSORT Adherence), indicates the adherence to CONSORT statement of the journals of the three countries that published the most of the RCTs (Schulz et al., 2010).
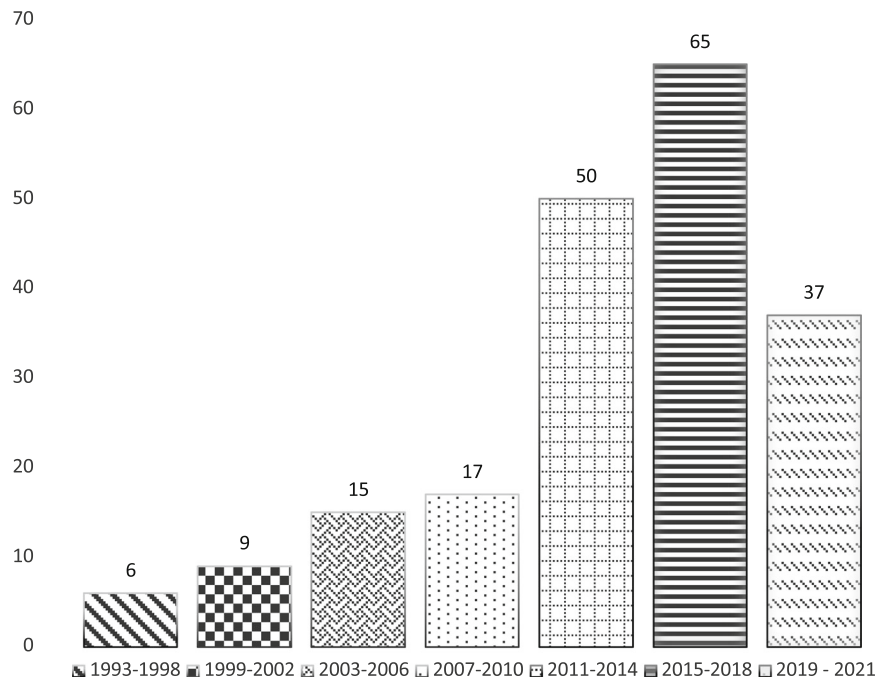
FIGURE 2 Number of RCTs published between 1993 and 2021 in 4-year intervals
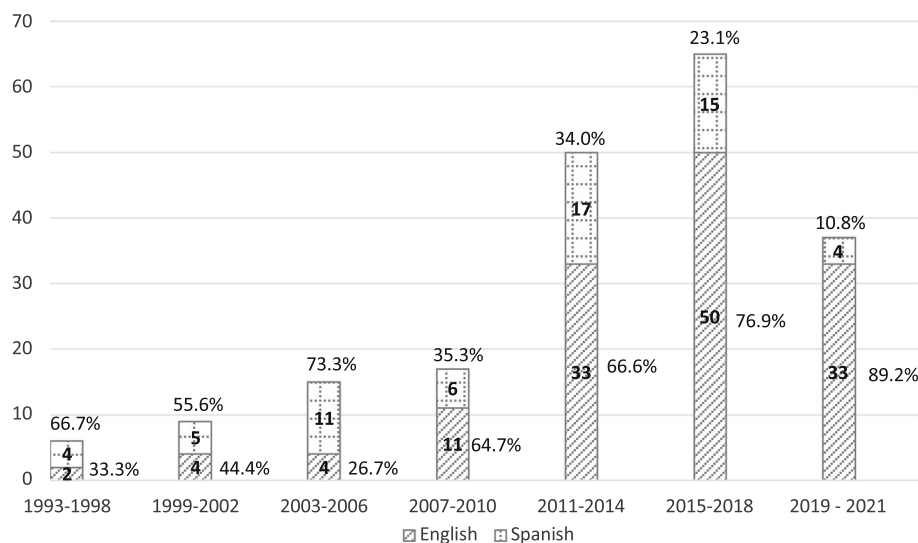

FIGURE 3 Number of RCTs published between 1993 and 2021 in 4-year intervals according to the publication language of the journal

($n = 6$) of the studies it was not possible to identify the comparator or it was not reported in the articles. One-hundred-nineteen (59.8%) of the RCTs implemented educational or information interventions. Various health problems were studied, being cardiovascular diseases the most frequently studied (11.1%; $n = 22$), followed by geriatric health problems (10.1%; $n = 20$), mental health (7.0%, $n = 14$) and obesity and malnutrition (5.5%, $n = 11$). See Table 2 for further details.

Table 3 shows the reporting of conflict of interest along with the type of funding of the studies. Sixty-seven

percent ($n = 133$) of the RCTs explicitly reported their funding sources, and of these 93.2% ($n = 124$) of them were funded by public institutions (government research funds, European funds, universities etc.)

Regarding the risk of bias assessment, 32.7% ($n = 65$) of the studies had a high overall risk of bias and 33.7% ($n = 67$) had a low overall risk of bias. Further details of the mentioned assessment are shown in Figure 4. Blinding of participants/personnel had a high risk of bias in 60.3% ($n = 120$) of the studies. The research team considered that 19.1% ($n = 38$) of the interventions in those

TABLE 2 Characteristics of the RCTs identified (n = 199)

	n	%	
N participants	75,571	100.0	
Women	40,961	54.2	
	Mean	**SD**	**Range**
Age (years)	55.5	21.0	0–92
Duration of RCT (years)	1.4	1.2	0–10
Type of study	**n**	**%**	
Unicentric	99	49.7	
Multicentre	100	50.3	
Setting	**n**	**%**	
Hospital	88	44.2	
Primary care	69	34.2	
Home care	17	8.5	
School/University	8	4.0	
Long-stay centres	6	3.0	
Emergency department	5	2.5	
Day centres	3	1.5	
Other	1	0.5	
Comparison in control group	**n**	**%**	
Standard care	137	68.8	
Placebo	10	5.0	
Other	37	18.6	
None	9	4.5	
Not reported	6	3.0	
Type of intervention	**n**	**%**	
Educational and information	119	59.8	
Other	29	14.6	
Medicines	18	9.0	
Rehabilitation	16	8.0	
Devices/equipment	15	7.5	
Chemotherapy	1	0.5	
Surgery	1	0.5	

TABLE 3 Conflicts of interest and type of funding reported in identified studies (n = 199)

Category	n	%
Conflict of interest		
Reported conflict	9	4.5
Reported no conflict	124	62.3
Not reported	66	33.2
Type of funding		
Reported public funding	119	59.8
Reported private funding	13	6.5
Not reported	67	33.7

studies were deemed as high risk of bias and most of the studies did not blind participants or personnel. Regarding the journals, a majority of them focused on medical fields other than nursing and were published in English.

Only one fifth of the identified journals were classified within the JCR category of nursing, which means that a high proportion of RCTs in nursing are published in journals related to other fields. Possible explanations may include that journals in other fields, for example, general medicine, have a higher impact factor. Readership of those journals may also be higher than that of nursing journals (Villanueva et al., 2018). For this reason, when identifying RCTs in nursing, it may be advisable to incorporate broad searching strategies and to search at least two different types of databases. One of them should be specialised in RCTs indexation in any field (e.g., CENTRAL) and the other one in nursing (e.g., CINAHL) to retrieve literature published in nursing journals and other medical fields. In our study, we have searched a RCTs database (CENTRAL), a nursing database (CINAHL) and a general health science database (PubMed) with the aim of covering as many different types as possible of journals.

Most of the journals where the identified RCTs were published are edited in English. This pattern seemed to increase over time, as half of all eligible RCTs over the last 8 years (n = 80; 50.3%) were published in journals edited in English. A plausible hypothesis may be that journals in English are likely to have a higher impact factor and broader readership (Villanueva et al., 2018) and therefore, more attractive to local authors (Loezar et al., 2018; Villanueva et al., 2018). Our study incorporated only electronic searches in literature databases where journals are indexed. We did not search local or international journals where RCTs could be published and that were not indexed in databases, hence not searchable via electronic strategies. When trying to comprehensive identify the scientific output in fields like nursing from non-English speaking countries, it may be advisable to incorporate handsearching,
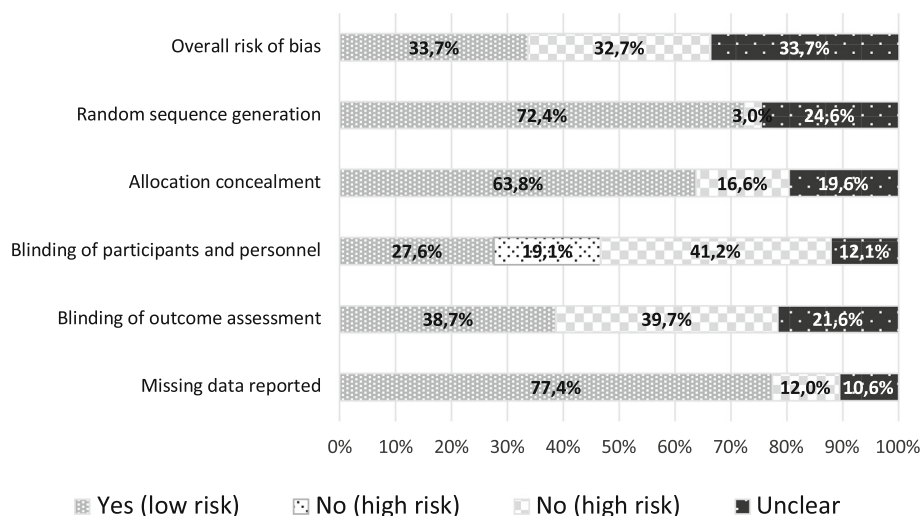
studies could have been blinded and the remaining 41.2% (n = 82) would have been impossible to blind.

DISCUSSION

In this study, we identified 199 RCTs conducted by Spanish research teams in nursing published in 122 journals. Most of these studies were completed in hospital or primary care settings and received public funding. One third of the

FIGURE 4 Risk of bias assessment of the identified studies ($n = 199$)

particularly of local journals (Armstrong et al., 2005; Hopewell et al., 2007).

Of all the identified journals ($n = 122$), 33.6% ($n = 41$) did not explicitly state that they adhered to CONSORT recommendations for the reporting of RCTs. This becomes relevant, for instance, in aspects such as the title, which should clearly identify the study as an RCT. Nonadherence could obstruct the identification of these studies; suboptimal reporting quality may also have a direct effect on methodological quality assessment (Arevalo-Rodriguez et al., 2018). Incorporating the CONSORT checklist as a requirement for publication of RCTs strengthens research the transparency and quality, and facilitates the critical appraisal of this type of research design (Blanco et al., 2018; Turner et al., 2012).

Interestingly, almost a quarter of the Spanish journals identified were not indexed in MEDLINE and almost half of them did not appear in JCR. Even though the impact factor of these journals was not obtained, there may be a perception that local journals have a more limited reach or prestige than international journals (Loezar et al., 2018). Journals could publish articles in Spanish and in English in order to broaden reach and readership.

Over the 29 years studied, a mean value of seven RCTs related to nursing were published per year, a rate somewhat higher than in other disciplines such as physiotherapy or orthopaedics and trauma (Arevalo-Rodriguez et al., 2018; Turrillas et al., 2017). The number of RCTs published in nursing has increased over time, being highest during the last 11 years (2011–2021). This finding is in line with the trends in RCTs publication growth in general, where some authors found a 138% of growth, especially in the last decade (2010–2021).

The overall risk of bias assessment of the identified RCTs found similar proportions for the three categories

(low, high or unclear risk of bias). In our study, the process of personnel or participants blinding was the least fulfilled domain, similar to the evaluations in other studies of methodological assessment of RCTs in nursing (Munday et al., 2020; Pham et al., 2021), and in trends of RCTs in general (Vinkers et al., 2021). This may be due to the fact that most commonly studied interventions were educational, and their inherent nature makes them very difficult to blind (Guo et al., 2014; Loezar et al., 2018; Vinkers et al., 2021). However, an in-depth analysis of this characteristic showed that almost 20% of the RCTs could have blinded both personnel and/or participants, hence reducing the risk of bias.

To our knowledge, this is the first study to analyse published RCTs in nursing conducted by Spanish research teams. The implementation of a screening strategy conducted by two experienced researchers increased the probability of including a large number of RCTs. The electronic search was carried out in three large health-science databases: MEDLINE (PubMed), CINAHL and CENTRAL, ensuring a broad scope.

A limitation of our study is that there are other filters available for searching studies from Spain that we did not incorporate (Valderas et al., 2006). We trust that the multipronged search strategy that we used allowed us to overcome this limitation. Future studies could incorporate this (Valderas et al., 2006) and other filters to better understand the searching process of these kinds of studies.

Our study shows that, if performed in more than one database electronic searches may not be as limited in retrieving RCTs conducted by Spanish teams as other authors have suggested (Gutarra-Vilchez et al., 2016; Martí et al., 1999). However, additional handsearching in non-indexed journals may still be warranted; this is

perhaps the most relevant limitation of our study. In order to build up a better picture of all the RCTs conducted by Spanish teams in nursing, it may be necessary to incorporate handsearch in Spanish nursing journals that are not indexed in the main databases. Handsearching complements the valuable task conducted by information specialists when trying to identify RCTs. This would retrieve further RCTs published by Spanish research teams regardless of the indexing status of the publishing journal. The Iberoamerican Cochrane Centre has carried out similar projects to date; the identified RCTs were submitted to CENTRAL, the Cochrane Collaboration's controlled trials database (Arevalo-Rodriguez et al., 2018; Gutarra-Vilchez et al., 2016; Loezar et al., 2018; Martí et al., 1999; Sanclemente et al., 2015; Turrillas et al., 2017; Villanueva et al., 2018) As a result, RCTs published in non-indexed journals have been given greater visibility (Pardo-Hernandez et al., 2017). In our study, the newly identified RCTs not included in CENTRAL were submitted to this database through the Cochrane Register of Studies (CRS), which works as a data management tool and a data repository. The submission was successfully completed using the Iberoamerican Center's journals and trials database (BADERI) following methodology published elsewhere (Pardo-Hernandez et al., 2017). As a result, the availability and identification in electronic literature searches of these RCTs have been enhanced, as well as the possibility of inclusion in evidence synthesis studies.

Future research could assess the degree of adherence to the CONSORT checklist (Schulz et al., 2010). While journals usually require using CONSORT when submitting RCTs for publication, it is unclear whether authors do actually act on this suggestion and if reporting is adequate (Adams et al., 2018).

CONCLUSIONS

The number of RCTs conducted and published by Spanish teams in nursing has increased over time, particularly during the last decade. There is a tendency of Spanish authors to publish in international journals edited in English and that may not be classified under the nursing category. Comprehensive identification of RCTs in nursing may require searching in journals beyond the scope of nursing. If the objective is to identify the scientific output in fields like nursing from non-English speaking countries, it may be advisable to incorporate handsearching, particularly of local journals. Adherence to CONSORT should be strongly advised as prerequisite for publication in order to promote proper design and reporting of RCTs.

CONFLICT OF INTEREST
Nothing to declare.

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APPENDIX A

A.1 | SEARCH STRATEGIES
A.1.1. | Search strategy for MEDLINE

For Nursing:

(nurs*[tiab] OR 'Nursing'[Mesh] OR 'Nursing Staff' [Mesh] OR 'Nursing Care'[Mesh] OR 'Evidence-Based Nursing'[Mesh] OR 'nursing' [Subheading])

For Spanish research teams:

AND (Spain[ad] OR 'Spain'[Mesh] OR Espana [ad] OR España[ad] OR Spain[tiab])

For randomised controlled trials:

(randomised controlled trial[pt] OR controlled clinical trial[pt] OR randomised[tiab] OR placebo[tiab] OR drug therapy[sh] OR randomly[tiab] OR trial[tiab] OR groups[tiab]) NOT (animals [mh] NOT humans [mh]) AND ('0001/01/01'[PDAT]: '2021/10/31'[PDAT])

(nurs*[tiab] OR 'Nursing'[Mesh] OR 'Nursing Staff' [Mesh] OR 'Nursing Care'[Mesh] OR 'Evidence-Based Nursing'[Mesh] OR 'nursing' [Subheading]) AND (Spain [ad] OR 'Spain'[Mesh] OR Espana[ad] OR España [ad] OR Spain[tiab]) (randomised controlled trial[pt] OR controlled clinical trial[pt] OR randomised[tiab] OR placebo[tiab] OR drug therapy[sh] OR randomly[tiab] OR trial[tiab] OR groups[tiab]) NOT (animals [mh] NOT humans [mh]) AND ('0001/01/01'[PDAT]: '2021/10/31'[PDAT])

A.1.2. | Search strategy for CINAHL

For Nursing: TI nurs* OR AB nurs*

For Spanish research teams: AU Spain OR AU Espana OR AU España OR Spain OR Espana OR España

For Randomised controlled trials: PT randomised controlled trial OR PT controlled clinical trial OR TI randomised OR TI placebo OR MW drug therapy OR AB randomly OR TI trial OR AB trial OR AB groups NOT MH animals NOT MH humans

http://search.ebscohost.com.are.uab.cat/login.aspx?direct=true&db=ccm&bquery=((TI+nurs*)+OR+(AB+nurs*))+AND+((AU+Spain)+OR+(AU+Espana)+OR+(AU+Espa%26%23241%3ba)+OR+(Spain)+OR+(Espana)+OR+(Espa%26%23241%3ba))+AND+((PT+randomized+controlled+trial)+OR+(PT+controlled+clinical+trial)+OR+(TI+randomized)+OR+(TI+placebo)+OR+(MW+drug+therapy)+OR+(AB+randomly)+OR+(TI+trial)+OR+(AB+trial)+OR+(AB+groups)+NOT+(MH+animals)+NOT+(MH+humans))&lang=es&type=1&searchMode=Standard&site=ehost-live

A.1.3. | Search strategy for CENTRAL

#1 nurs*tiab
#2 [mh nursing]
#3 [mh 'nursing staff']
#4 [mh 'nursing care']
#5 [mh 'evidence based nursing']
#6 #1 OR #2 OR #3 OR #4 OR #5
#7 spain OR españa OR espana
#8 #6 AND #7