The use of debate as a teaching strategy among undergraduate nursing students: A Systematic Review

ABSTRACT

Background: Nurse educators are required to prepare graduates for the increasing complexities of the practice environment. Debate is a teaching strategy long recognised in many disciplines to promote active learning.

Objectives: The aim of this study was to evaluate how debating has been applied in nursing education and the outcomes associated with this educational strategy.

Design: A systematic review of the literature.

Data sources: Publications in English identified in multiple databases (PubMed, CINAHL, Web of Science, Medline and ERIC) from the launch of the database until 26th November 2019.

Review method: The Preferred Reporting Items for Systematic Reviews and Meta-Analyses guided the review.

Results: We identified 14 relevant studies describing structured implementation of debate. Heterogeneity was found across the papers regarding topics, timing schedules, group formation and positioning. Most of the studies evaluated implementation using satisfaction questionnaires or subjective observations. Three quasi-experimental studies reported that implementation of debating improved declarative capacity, argumentative capacity, idealistic moral judgment, and realistic moral judgment.

Conclusions: Current studies do not provide enough evidence to understand the scope of debating as an instrument to develop nursing care skills. However, based on the

evidence reviewed, we have identified elements to establish a debate-based learning format that might enhance student's learning and future studies.

INTRODUCTION

Debate is a strategy which can be traced back to the Sophist school in Ancient Greece (Snider and Schnurer, 2006). In more recent times, debate as a teaching strategy has aroused interest in academia around the world (Boucaud et al., 2013; Lampkin et al., 2015; McIntosh, 1984). Research has shown that debates can be successfully implemented as a teaching method in Health Sciences (Dy-Boarman et al., 2018a; Keynejad et al., 2017; Lampkin et al., 2015; Latif et al., 2018; Mamtani et al., 2015) as well as in a wide range of disciplines including Geography (Healey, 2012), Business (Rao, 2010) or Tourism Education (Alén et al., 2015).

Regardless of the discipline, the learning process in debating takes place through repetitive development of three phases. It begins with individual identification of learning outcomes, followed by teamwork and ends by formulating a debate, where the acquired knowledge is defended and questioned (Bradshaw, 2017; Rao, 2010).

The debate methodology promotes' students active engagement and, similarly to the flipped classroom (Njie-Carr et al., 2017) or problem-based learning (Kong et al., 2014), debate also integrates collaboration and team-based learning, enabling development of significant skills identified in "Tuning Educational Structures in Europe" (Merida et al., 2016).

As a pedagogical tool, debating can improve students' engagement in learning (Healey, 2012; Tessier, 2009) and help them achieve short- and long-term learning outcomes (D'Souza, 2013; Rao, 2010). Debating helps learners develop communication skills, since students find that they need to express their professional opinions (Bradshaw, 2017; D'Souza, 2013). Several authors mention debating as a method that promotes critical thinking through development of analysis, synthesis and evaluation, helping students achieve high order knowledge and skills in Bloom's Taxonomy (Kennedy, 2009; Omelicheva and Avdeyeva, 2008; Rao, 2010; Scott, 2008).

The potential of this methodology lies in processing and presenting a point of view (Bradshaw, 2017). However, preparation of arguments *for* and *against* a debate question can lead to memorisation of previously constructed arguments. At the same time, this dualistic view may represent the nature of knowledge inadequately and encourage students to develop a reductionist view of complex problems (Tumposky, 2004). Moreover, some aspects of this methodology have been described as problematic. For instance, interactions between peers become confrontational during the debate, exerting possible psychological pressure that conditions students' contribution to the dialogue (Scott, 2008; Tumposky, 2004).

Considering the possibilities and limitations, it is important to know how to format the debate to maximize student learning. Most published studies on debate education have reported positive effects on nursing students' knowledge, skills, and attitudes. However, to our knowledge, there has been no systematic review of the effects of debating on nursing education. Therefore, the aim of this systematic review was to identify, critically appraise and summarise evidence on implementations of the debate teaching method among nursing students.

METHODS

Design

We conducted an extensive systematic search of the literature on implementation of debate as a teaching strategy in nursing degrees. The Preferred Reporting Items for Reviews and Meta-analyses (PRISMA) framework (Liberati et al., 2009) was used to ensure complete reporting of the evidence-based minimum reporting items on debate models in nursing education.

Information Sources and Search Strategy

Searches were run in databases such as PubMed, CINAHL, Web of Science, Medline and ERIC, seeking articles published until the 26th of November 2019. Our search terms comprised the following keyword combinations: *debate* AND *nurs** AND (*education* OR *train** OR *teach**) AND *student*.

<u>Inclusion and exclusion criteria</u>

The studies we selected for review met the following criteria: (1) reports of primary research that investigated the use of debate amongst undergraduate nursing students, (2) debating consisted of arguing the pros and cons of a nursing topic, (3) debating was implemented in the classroom, and (4) debating was used as a pedagogical tool. Studies were excluded if they (1) were not relevant to pedagogical "debate", (2) did not apply debating in the classroom, and (3) were focused on a discipline other than nursing. Review articles, editorials and grey literature were also excluded.

<u>Search Outcome</u>

We identified 1174 articles in our initial database search (152 in CINAHL, 267 in PubMed, 415 in Web of Science, 316 in Medline and 24 in ERIC). We imported all of them into the Mendeley reference manager to identify and remove duplicates (629 entries). Of the remaining 545 articles, we excluded 509 that were clearly not relevant, based on a peer review of titles and abstracts. Finally, two of the authors assessed the full text of the remaining 36 potentially relevant articles for eligibility, excluding any that were not implemented amongst undergraduate nursing students (n=7), presented a non-structured debate schedule (n=4), consisted of online courses (n=5), were published in a language other than English (n=4) or consisted of a mock trial (n=2). In both screening and eligibility phases (Fig. 1), two additional authors contributed to resolving any uncertainty regarding suitability of the papers.

Data extracted from the 14 eligible articles has been summarised in Table 1, including sample characteristics, method, characteristics of the debate, evaluation method and key findings from the investigation.

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Figure 1

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RESULTS

Fourteen articles met the inclusion criteria (Table 1). The following sections present the general characteristics of the studies, evaluation of their quality and a summary of the main results in relation to the chosen features of the debate.

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Insert Table 1

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Study characteristics

These fourteen studies were conducted in high-income countries: USA (=9), South Korea (=3), Ireland (=1) and Spain (=1).

All fourteen studies included in this review were published during the years 1967 to 2019 in high-income countries: USA (=9), South Korea (=3), Ireland (=1) and Spain (=1).

The study samples comprised second-year (Brouder and Brock, 1984; Candela et al., 2003; Garity, 2008), third-year (Arrue et al., 2017; Pender, 1969), fourth-year (Kim and Park, 2019; McIntosh and Schlueter Pettit, 1984) or mixed-year nursing students (Choe et al., 2014). The remaining seven papers did not specify the students' academic year.

The subjects or themes used to implement the debate were extremely heterogeneous. Ethical conflicts were used in four studies (Choe et al, 2011; Choe et al., 2014; Garity, 2008; Kim and Park, 2019). The rest opted for a broad range of topics, including public health (Pender, 1969), clinical nursing procedures (Veith, 1974), collective bargaining (McIntosh and Pettit, 1984), self-care theory dilemmas (Brouder and Brock, 1984), tertiary prevention (Candela et al., 2003), geriatric nursing (Burbank et al., 2006), intellectual disability (Doody and Condon, 2012), current issues in nursing (Hanna, 2014) and schizophrenia (Arrue et al., 2017). The remaining study did not describe the specific topic used to implement the debate (Jackson, 1977).

Characteristic of the debate process

All studies used debating as a teaching tool. However, interventions were broadly heterogeneous making it difficult to compare studies directly (refer Table 1).

Given the consistency of identical pedagogical implementation steps between studies, we divided the debate process into three phases: pre-debate activity, staging and the post-debate activity.

· Pre-debate activity

In this phase, students explored the relevant literature on the topic. While most studies did not specify the number of weeks required for this phase, three articles mentioned a duration between 2 and 3 weeks (Arrue et al., 2017; Hanna et al., 2014; Veith, 1974). Besides looking for facts and evidence, the teams were also formed in this phase. 11 papers provided information regarding the number of members on each side of the debate. Teams of 4 were most common (Arrue et al., 2017; Choe et al., 2014; Jackson, 1977; Pender, 1969), although we also found 3 (Kim and Park, 2019), 10 (McIntosh and Schlueter Pettit, 1984), up to 5 (Candela et al., 2003; Garity, 2008), a minimum of 2 (Hanna et al., 2014) and even one where the debate was 1 on 1 (Burbank et al., 2006). Regarding the position assigned to each team in the pre-debate period, there was

divergence: most opted for the students to prepare both the *for* and the *against* positions (Arrue et al., 2017; Brouder and Brock, 1984; Choe et al., 2014, 2011; Hanna et al., 2014; Kim and Park, 2019), in other cases students were asked to prepare just one of the positions (Doody and Condon, 2012; Jackson, 1977; Veith, 1974). Several other authors did not state the criteria for position allocation (Burbank et al., 2006; Candela et al., 2003; Garity, 2008; McIntosh and Schlueter Pettit, 1984; Pender, 1969).

· The staging

The most noticeable differences lay in descriptions of the staging phase. The variables considered by the different authors were duration of the debate, and the type of turns. Regarding duration, one study stated that students debated for 10 minutes (Burbank et al., 2006). However, most debated between 15 and 20 minutes (Arrue et al., 2017; Brouder and Brock, 1984; Choe et al., 2011; Garity, 2008; Jackson, 1977) and the rest between 30 and 40 minutes (Choe et al., 2014; Kim and Park, 2019) and 50 or more minutes (Candela et al., 2003; Hanna et al., 2014; McIntosh and Schlueter Pettit, 1984). There were studies in which no reference had been made to duration (Doody and Condon, 2012; Pender, 1969; Veith, 1974). Determination of turn-taking was explained in 11 articles. According to the descriptions, there was an argument and refutation of both positions in five of the studies (Hanna et al., 2014; Jackson, 1977; Kim and Park, 2019; Veith, 1974), to which others added an abstract turn or conclusion (Arrue et al., 2017; Brouder and Brock, 1984; Candela et al., 2003; Choe et al., 2014, 2011; Doody and Condon, 2012; Garity, 2008).

· Post-debate activity

The third and final phase was the post-debate. Among the authors who commented on the post-debate activity, some did an activity immediately after the debate (i.e. peer evaluation, discussion, feedback) and some set the students an assignment (i.e. essay, notes). Among the former, two studies chose to give feedback on the same day as the

debate (Arrue et al., 2017; McIntosh and Schlueter Pettit, 1984) and four promoted discussion involving all students (Brouder and Brock, 1984; Doody and Condon, 2012; Hanna, 2014; Jackson, 1977). Moreover, in several studies, the non-debating or spectator students played an active role in the post-debate activity by asking the debaters questions (Brouder and Brock, 1984; Candela et al., 2003; Doody and Condon, 2012; Hanna, 2014; Jackson, 1977; McIntosh and Schlueter Pettit, 1984) or by participating in the evaluation (Arrue et al., 2017; Choe et al., 2011; Kim and Park, 2019). In four of the studies, no reference was made to the role of the spectator students (Burbank et al., 2006; Choe et al., 2014; Pender, 1969; Veith, 1974). Among the latter, some asked the students to write an essay on the debate (Kim and Park, 2019), some asked each individual for the list of references and notes used during the debate (Candela et al., 2003) and some handed out the typed speeches to the whole class (Pender, 1969).

Quality Assessment

Regarding the method used to evaluate the effectiveness of debating as a teaching tool, the three most recently published articles used a quasi-experimental methodology with pre-test and post-test design (Arrue et al., 2017; Choe et al., 2014; Kim and Park, 2019). The remaining articles followed the logic of instructional design and were limited to narrating the experience and opinions derived from the use of debating in class.

The power of sample sizes among studies that statistically analysed learning outcomes is modest (64 subjects in Arrue et al., 2017; 47 in Choe et al., 2014 and 35 participants in Kim and Park, 2019), although it might be considered representative considering the specificity of the target effects and the homogeneity of the population (Cook and Hatala, 2015).

Among the papers that followed instructional design, no empirical data was collected to assess the effect of the debate on learning outcomes and reporting bias was likely due

to use of self-reporting by students. Therefore, the findings from these articles should be interpreted with caution.

<u>Learning outcomes</u>

The studies included in this review concluded that debating improved learning outcomes or that there were perceived improvements in students' engagement and satisfaction.

Notably, three papers presented empirical data to support such statements. Regarding students learning evolution from pre-debate to post-debate time, Choe et al. (2014) found that both perceived ethical capacity measured by the Ethical Competence Questionnaire and self-reported knowledge of bioethics measured using the Recognition of Bioethical Issues Questionnaire (Choe et al., 2013) improved among Korean 1st, 2nd and 3rd year nursing students. Along the same line, Kim and Park (2019) found a significant enhancement of idealistic moral judgment and realistic moral judgment of Korean 4th year students measured by questions associated with the patient-care vignettes included in the Judgments about Decisions tool (Kim, 1999), although they did not find any improvement in the self-reported answers to the Moral Sensitivity Questionnaire (Han et al., 2010). When compared to students who attended traditional lectures, debate students showed higher rates concerning both idealistic and realistic moral judgement (Kim and Park., 2019). Conversely, the self-reported knowledge of bioethics was poorer in the debate group compared to the so-called action learning group, in which students visited the clinical practice site, listened to descriptions of cases involving ethical issues that had been experienced by nurses and attempted to come up with solutions autonomously (Choe et al., 2014). In the latter study, no changes were found between pre- and post-debate rates of the self-reported perception appearing on the Need of Bioethics Education Scale (Choe et al., 2013).

Concerning mental health issues, Arrue et al. (2017) found statistically-significant improvements in the students' resolution of the clinical scenario for both declarative

(identification of schizophrenia symptoms; identification of nursing interventions) and argumentative (provides a rationale for nursing interventions; provides evidence of nursing interventions) learning outcomes from pre- to post-debate time.

Amongst papers in which empirical data had not been collected, the majority reported students' satisfaction based on non-validated questionnaires (Brouder and Brock, 1984; Burbank et al., 2006; Doody and Condon, 2012; Pender, 1969; Veith, 1974), and some even mentioned that students believed they had improved their skills (Candela et al., 2003; Doody and Condon, 2012). Although some studies combined satisfaction questionnaires with tasks performed by students, such as solving a case (Brouder and Brock, 1984), or writing a dissertation/essay (Choe et al., 2011; Hanna, 2014), this kind of qualitative data was used to assess the pedagogical potential of debating in just two papers. On the one hand, Candela et al. (2003) carried out some descriptive analysis on satisfaction, reporting that 75% of students felt more able to recognise ethical aspects of healthcare situations, while 75% found debating challenging and 47.8% felt they would use the skills learned in the debates in future nursing practice. On the other hand, Burbank et al. (2006) asked students to complete a sentence related to geriatric stereotypes before and after the debate, and reported that the number of listed positive adjectives had doubled, whereas the negative decreased from the pre- to post-debate time. In two of the studies, the lecturers valued the degree of student performance during the debate using a rubric (Doody and Condon, 2012; McIntosh and Schlueter Pettit, 1984). Lecturers also stated their skills had improved as a result of the debate (Garity, 2008; Hanna, 2014; Jackson, 1977; McIntosh and Schlueter Pettit, 1984; Veith, 1974).

DISCUSSION

Our review has shown three key ideas: 1) few implementations featuring debate have been published in the area of Nursing; 2) in addition, there is no common format, and 3) there is a lack of robust research that allows debating to be established as a validated teaching tool.

If we look at the first key idea, whether debate is used in Nursing or not, it is surprising that despite it being such an age-old tool (Snider and Schnurer, 2006), we have only found 14 studies which used structured debate in the classroom. According to this review, structured debate was used in Nursing in the US around the 1970s and then vanished from nursing education research until 2003. We could argue whether the rise of active methodologies such as problem-based learning, simulation or the flipped classroom among others had contributed to the demise of the debate. Perhaps, another reason for this gap could be the longstanding idea among lecturers that debating is a tool to address mainly ethical issues (Oermann et al., 2018). However, studies within this review include a wide range of topics, highlighting the adaptability of debating.

Secondly, this systematic review revealed a great variability of formats for the classroom debate, both in configuration of phases and turns and in the time used for them.

· Pre-debate activity

One of the fundamental components of this teaching methodology seems to be the pre-debate phase that all authors consider, without exception. In this phase, students seek evidence to defend their position. That is, they take the ultimate responsibility for their learning. This fact supports the idea that the student should be the principle active agent of the learning process (Rowles, 2011).

Nevertheless, the position each team should defend varies from one study to another. We noted that in most papers, lecturers choose to assign both positions to the students whereas in a few others, positions were chosen by students themselves (Jackson, 1977; Veith, 1974) or randomly drawn (Doody and Condon, 2012). Debate preparation involving the search for argumentative lines *for* and *against,* seems the most complete option as it encourages development of critical skills and enhances creative thinking, with which students are able to give multiple answers to a problem (Frenk et al., 2010; Morrall and Goodman, 2013).

- The staging

The essential staging structure would be taking turns for the introduction, refutation and conclusion. However, as already mentioned, there is considerable variability: from the number of members in the team, to the way in which the positions are decided, the timing of each turn or the role of students who did not participate in the debate.

Teams of 4 students were mostly used. In some cases, students picked their own groups, while in others they were formed at random. Various authors (Corbridge et al., 2013; Eastridge, 2014) recommend forming the working groups randomly. Besides, the rules of competition debate might include asking a student to play the role of the moderator (Edwards, 2008).

- Post-debate activity

To finalize the experience, some authors considered it of interest to include a group discussion in the classroom following the staging (Brouder and Brock, 1984; Doody and Condon, 2012; Hanna, 2014; Jackson, 1977). It seems logical to also involve non-debating students in the activity, since we accept the baseline premise that knowledge is built internally from a process of student reflection starring the student himself (Bradshaw, 2017; Schmidt et al., 2011). This also agrees with the studies by Boud and Molloy (2013) where they revealed that feedback providers also perceived benefits. Another post-debate resource besides group discussion was providing feedback for the process (Arrue et al., 2017; McIntosh and Schlueter Pettit, 1984), which corroborates the trend of the broad bibliographic corpus that deals with the research on this topic (Boud and Molloy, 2013; Hattie and Timperley, 2007; Tuvesson and Borglin, 2014; Vogel and Harendza, 2016).

According to all the data collected, we have found debating to be a versatile tool. Nevertheless, this versatility has its positive and negative sides. It is positive from the point of view of adaptability, but also negative, since we cannot provide lecturers with a

failsafe systematic tool. This leads us to the third key idea, which is the lack of robust studies to establish debating as a validated teaching tool to ensure acquisition of learning outcomes.

While it is true that all authors in this review advocated the use of debating due to improvements observed in students, only the articles published in 2014, 2017 and 2019 (Arrue et al., 2017; Choe et al., 2014; Kim and Park, 2019) have proposed measurable outcomes. The remaining studies based their conclusions on the results of satisfaction questionnaires or subjective observations. Although all three experimental studies certainly come to positive conclusions (greater declarative skills, greater argumentative skills, greater improvement in idealistic moral judgment and realistic moral judgment), the authors of these papers also said that it was not enough to affirm that the classroom debate was a tool that guaranteed skills acquisition. As Lambert (2012) and Betihavas et al. (2016) pointed out, it is indispensable to measure the results of any application and overcome the mere perception of students through what are colloquially called 'happy-sheets'. Improvement of the quality of teaching-learning processes requires implementation of educational innovations in the classroom and their evaluation (Betihavas et al., 2016; Dy-Boarman et al., 2018b; González-Chordá and Maciá-Soler, 2015; Lambert, 2012).

Therefore, according to the results of this systematic review, it would be desirable for the debate methodology to include a pre-debate activity, staging, and a post-debate activity, in agreement with the nature of a process. The pre-debate requires a minimum of two weeks of intense preparation to look for facts and evidence. Regarding team members, four is the most common. The team should prepare both sides, to achieve an integrative perspective of the problem and promote development of critical skills during the process. Lasting about 20 minutes, the debate should comprise turns for the introduction, refutation, and conclusion. The audience should play an active role by evaluating interventions, based on a rating scale and/or by asking each presenter. A post-debate

activity (feedback, an audience discussion or students may be asked to write an essay) could help to incorporate the learning outcomes acquired from the debate.

Due to the diverse ways in which debate is implemented and limited availability of high-quality research, the extent to which clear conclusions can be drawn about the usefulness of debating may be limited. However, it is precisely because of the scarcity of available data that this review makes a valuable contribution to the understanding of debating as a teaching strategy. Although all the studies included in this review emphasized the virtues of debating as a teaching tool, the limited number of studies with methodological rigor makes it difficult to determine validity. In this sense, debate methodology should be developed that is specific, applicable, and evaluable. Based on the reiterative debate implementation steps we found among studies, we propose a debate implementation schedule aimed to guide future studies (Table 2).

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This study is limited by all the weaknesses noted in the reports from which this data is derived, including heterogeneity in debate implementation, and the variable quality of the original studies. Such heterogeneity, along with scarce measurable results, precluded a meta-analysis.

CONCLUSIONS

Analysis of studies in nursing education following this teaching strategy revealed a great variability of debate formats and lack of evaluation of its effectiveness. In this sense, we think that it is essential to identify the best format and evaluation method for debating. It

seems logical to think that a teaching tool that is based on argumentation and refutation is valid to develop skills. At a time where we are experiencing an increase in the popularity and availability of e-learning technologies, we advocate reconsidering the essence of teaching. In this review, we provide nurse educators with an evidence-based framework to design and implement more robust debate-based teaching sequences, to guide future research and further develop the science of nursing education.

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Table 1: Summary of the main characteristics of the included studies in order of year of publication

Autor(s) Year Country	Sample	Method	Characteristics of the process of debate	Teaching strategy evaluation method	Results
Pender 1967 USA	Subject: Public Health 3rd year nursing students	Instructional design	· **Pre-debate activity:** to explore relevant literature · Debate team members: 4 (two of which had been on debate teams in high school) · **Post-debate activity:** debate speeches were typed and distributed to the entire class	Reflective comments of the students	"All the students agreed they had profited from it and had enjoyed doing it" "All the students recommended that debate should be used for future groups"
Veith 1974 USA	Subject: Nursing clinical procedures n=100	Instructional design	· **Pre-debate activity** · To review the literature during 2- 3 weeks looking for facts and evidence (individually) · Positioning decision: students chose one position (for, against or moderator) · **Mise-en-scene activity** (1 on 1) · Main arguments (both positions) · Refutations (both positions) · Summary (1 student)	Satisfaction questionnaire Subjective observation	The majority of students expressed satisfaction High attendance rate Students were thinking constructively
Jackson 1977 USA	n = 65 approx.	Instructional design	· **Pre-Debate activity** · Positioning decision: Students´ own choice · Debate team members: 4 (two debaters each side) · **Mise-en-scene activity** (15 minutes of debate per issue) · Preparation (4 minutes per team) · Rebuttals · **Post-debate activity**: · **Non-debating students´ role:** Audience discussion · Students are asked questions about the topic	Observational evaluation	Authors states that "this dynamic approach enhances students' involvement and identification with the profession, going past factual learning acquisition"
McIntosh and Schlueter Pettit 1984 USA	Subject: Collective bargaining 4th year nursing students	Instructional design	· **Pre-debate activity** · 13-week work guided by a faculty · Debate team members**:** 10 self-selection · **Mise-en-scene activity** (55 min) · Oral presentation · **Post-debate activity:** · **Non-debating students´ role:** Audience questioning · Feedback (oral critique and written comments/grades)	Mean of 3 faculty scores of a rubric (analysis and articulation, range of arguments, use of persuasion and alternative approach, format, bibliography, and oral presentation)	Authors states "Cohesive teams achieved better final scores" Debate was evaluated favorably by faculty and students

Brouder and Brock 1984 USA	Subject: Self-Care Theory dilemmas 2nd year nursing students	Instructional design	· **Pre-debate activity** · To choose a topic, develop the debate proposition and review the literature looking for facts and evidence for both positions · Debate team members**:** Six self-selected groups · **Mise-en-scene activity** (20 min) · Main arguments (both positions) · Brief refutation (both positions) · Rebuttals (both positions) · Summary (both positions) · **Post-debate activity**: Discussion opened to the audience	Satisfaction questionnaire Final examination Case study	The majority of students expressed satisfaction The class acquired content knowledge and were able to defend their solutions
Candela et al. 2003 USA	Subject: Tertiary Prevention n=56	Instructional design	· **Pre-debate activity** · Debate team members: up to 5 · **Mise-en-scene activity** · Introduction (moderator) (2-3 min) · Introduction turn (10 min per position) · Rebuttal turn (3-5 min per position) · Conclusion (moderator) (2-3 min) · **Post-debate activity:** · **Non-debating students´ role:** Audience questions (5-10 min) · Individual submission of reference list and used notes	Satisfaction questionnaire	Increased skill in identifying and resolving ethical issues 75% felt more able to recognize ethical aspects of healthcare situations 75% found debate challenging 47,8% felt they would use the skills learned in the debates in future nursing practice
Burbank et al. 2006 USA	Subject: Geriatric Nursing 2nd year nursing students	Instructional design	· **Pre-debate activity** · Students select the topic and the beginning of the semester + receive some instruction on how to debate · Debate team members**:** 1 on 1 (self-selected) · **Mise-en-scene activity** (10 min)	Satisfaction questionnaire with the method of teaching (lecture, case studies, audiovisuals, debates, and group activities) Assessment of positive and negative adjectives students stated when they were asked to finish the statement "Older people are…"	Their level of satisfaction "very good" and "excellent" The number of positive adjectives listed doubled, whereas the negative decreased
Garity 2008 USA	Subject: Ethics	Instructional design	· **Pre-debate activity** · Meetings to refine the debate, reviewing the abstracts written after literature search and practice debate · Debate team members: 3-5 students (self-selected) · **Mise-en-scene activity** (20 min) · Short introduction · Presentation of for and against aspects · Rebuttals · Brief summary · **Post-debate:**	Observational evaluation	The author states that "students have related an improvement in objectively analyzing pros and cons and a greater understanding of the professional role"

			· **Non-debating students´ role:** 1 moderator. Others not stated.		
Choe et al. 2011 Republic of Korea	Subject: Bioethics	Instructional design	· **Pre-Debate activity:** student is asked to write a report, considering both for and against positions. · **Mise-en-scene activity** · Constructive/cross-examination phase (4 rounds per team; 2 min/each round) · 2 minutes of preparation time · Rebuttal phase (2 rounds per team; 2 min/each round) · 2 minutes of preparation time · Final speech (minutes) · **Post-Debate:** · **Non-debating student role:** evaluate on peer´s performance and arguments	Individual essay Ethical Reasoning Tool	The study proposes a debate-based bioethics curriculum for nursing students in Korea. The authors suggest the need to evaluate the effect on students learning on future research studies.
Doody and Condon 2012 Ireland	Subject: Intellectual disability nursing	Instructional design	· **Pre-debate activity** · In-class time to prepare and discuss the debates · Positioning decision: Randomly assigned · Debate team members**:** 4 · **Mise-en-scene activity** · Opening address · Individual speakers · Concluding argument · **Post-Debate:** · **Non-debating students´ role:** asking questions and making comments · Questions session	Scores of a Rubric (performance criteria)	Reflective comment of one student "The process facilitated me to look more critically at the literature, identify opposing perspectives, supporting information and possible alternative points of view (…) enabled team working (…) gain more confidence"
Hanna 2014 USA	Subject: Current issues in nursing	Instructional design	· **Pre-Debate activity** · 2 weeks before educator sent email with topic and materials · Positioning decision: "for" in one debate and "against" in the second debate · Debate team members: 2 minimum · **Mise-en-scene activity** (minimum of 4 rounds and maximum of 40 minutes) · For and against alternately (maximum 2 min each turn) until saturation. · **Post-Debate:** · **Non-debating students´ role:** Record debate points, write their opinions and assess their feelings related to the debated points.	An individual essay reflecting on of the debate's topic	Authors states "debate facilitates student's critical thinking and promotes problem solving. Also is a strategy to prevent *groupthink*"

· Open class discussion

Choe et al. 2014 Republic of Korea	Subject: Bioethics 1st, 2nd, 3th nursing students n=93 (46 action learning group; 47 cross-examination debate group)	Quasi-experimental study with two groups pre-test and post-test design	· **Pre-debate activity** · Review the literature looking for facts and evidence of both positions · Positioning decision: draw lots · Debate team members**:** 4 · **Mise-en-scene activity** (32 min) · First constructive speech turn (2 min per position) · Second constructive speech turn (2 min per position) · Third constructive speech turn (2 min per position) · Fourth constructive speech turn (2 min per position) · First rebuttal (2 min per position) · Second rebuttal (2 min per position) · Conclusion turn (2 min per position)	Recognition of Bioethical Issues Questionnaire (Choe et al.,2013) The Experience of Bioethics Education Scale (Choe et al.,2013) Need of Bioethics Education Scale (Choe et al.,2013) Quality of Bioethics Education Scale (Choe et al.,2013) Ethical Competence Questionnaire (Choe et al.,2013)	General Knowledge of Bioethics increased in Action group statistically significantly more than in the Debate group (p=.001) Statistically significant increase in ethical competence in both groups but not between groups (p=.529) No statistically significant differences between groups regarding positive perception of bioethics education (p=.071)
Arrue et al. 2017 Spain	Subject: Mental Health (schizophrenia) 3th year nursing students n=64	Quasi-experimental study with pre-test and post-test design	· **Pre-debate activity** · Review the literature for 3 weeks looking for facts and evidence (in teams) for both positions · Positioning decision: Randomly assigned · Debate team members: 4 · **Mise-en-scene activity** (20 min) · Introduction turn (2 min per position) · First rebuttal (3 min per position) · Second rebuttal (3 min per position) · Conclusion turn (2 min per position) · **Post-debate activity**: · **Non-debating students' role**: evaluate on peer´s performance (fill in a rubric) · Lecturers provided feed-back to the students	The students resolved two scenarios, one before (pre-test) and the other after the debate (post-test) TAP (Toulmin's argument pattern) model was used (Toulmin, 1958; Toulmin et al., 1984)	Declarative (p≤0.001) and argumentative (p≤0.001) capacity improved significantly with the Guided University Debate methodology

Kim and Park 2019 Republic of Korea	Subject: Ethics education 4th year nursing students n= 64 (35 debate group; 29 lecture group)	Quasi-experimental study with pre-test and post-test design	· **Pre-debate activity** · 3 lectures on ethical theories, principles, and codes of ethics for nurses. · Students instructed for and against argument presentation and written summary. · Debate team members: 3 · **Mise-en-scene activity** · Eight different topic debates over 8-week period · Introduction: learning outcomes and clarifications (5 min) · Deployment: positioning, role sharing, academic debate (40 min per debate) · **Post-debate activity**: · **Non-debating students' role**: evaluate on peer´s performance (1 moderator and 6 jury) and for and against argument written summary. · Only the jury students (essay)	Korean version of the Moral Sensitivity Questionnaire (k-MSQ) (Han et al., 2010) Judgments about Decisions (JAND) tool (Kim, 1999)	The moral sensitivity scores in the debate and lecture groups were not statistically significant (p=.884). Significant improvement in idealistic moral judgment (p=.018) and realistic moral judgment (p=.017) in the debate group compared to the lecture group were reported.

Table 2. Proposal of a structured guide for debate-based learning, implementation, and research in Nursing

Evaluation of the pedagogical effectiveness of the debate		
Control group (other teaching methodology) and/or ← Pre-debate --------------- Evaluation of learning outcomes ------------ Post-debate → - Vignettes/clinical scenarios - Declarative questions -Argumentative questions -Validated questionnaires		

	Pre-debate activity (2-3 weeks)	**Mise-en-scene (20-30 minutes)**	**Post-debate alternative activities**
Aim	· Setting context · Acquiring information · Applying knowledge · Student autonomy	· Experimenting · Retrieval information · Applying knowledge	· Engagement · Iteration · Improvement
How	Random groups of 3-4 students. Instruction on how to debate State the debate question (explore existing knowledge, identify what students do not know) Each group collects evidence and constructs arguments to support both positions	Phases: · Introduction · Two Refutation turns · Conclusion Role of the of the Non-debating students: · Moderator · Evaluate debaters Role of the of the teacher: · Moderator · Evaluate debaters	Group discussion Feedback of the teacher Feedback of the Non-debating students Evaluation Essay/Case Audience questions