LEADERSHIP IN NURSING: RESEARCH TRENDS*

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Abstract

This study aims to investigate the research trends in articles published on leadership in nursing. Leadership is a major research topic in nursing. However, the research trends in leadership in nursing still remain unknown.

The researchers used a certain keyword "leadership" in 833 research articles in the nursing category of the Social Sciences Citation Index (SSCI) in the Web of Science (WoS) database, and in Science Citation Index Expanded (SCIE) WoS index. The research data were recorded and analyzed in Excel and they were visualized with VOSviewer. The study findings indicated that research articles on leadership in nursing were produced in 51 different countries between 1970 and 2018. It was additionally noted that USA has the highest number of publications and that the Journal of Nursing Administration was the most popular journal in regard to leadership in nursing topic. It was also reported that a majority of these studies (98.7%) were published in English with most common keywords "leadership", ''nursing'', "transformational leadership", "nursing leadership".It was further found that the number of studies on leadership in nursing has been gradually increasing, that the researchers in the United States were trailblazers in the field, and that the Journal of Nursing Administration has been one of the primary sources on this subject area.

This study, accordingly, is considered to guide researchers in relation to research trends in leadership in nursing.

Keywords: Nursing, leadership, nurse, social network analysis, bibliometric analysis.

1. INTRODUCTION

Leadership often refers to a combination of abilities and knowledge to organize and mobilize a group of people to achieve certain goals (Eren, 2010). Besides being a primary managerial skill for all professional groups, leadership is also considered important for nursing practice (Amestoy et al., 2017).

The current state of healthcare is globally characterized with limited financial resources, poor human resources management, increasing number of patients, and inadequate public investment (Scherer et al., 2018). Moreover, hospital managers frequently report difficulties in responding the patient needs and an urgent need for cooperating with the leaders in care management. Accordingly, it is utterly important that professional leaders have relational skills, make decisions from a critical perspective, and promote an ongoing leadership potential to meet healthcare needs and to improve clinical practice (Amestoy et al., 2017). Nurses, on the other hand, may potentially contribute to a better understanding of the needs and priorities of their patients and provide a better quality patient care when they improve their leadership skills (Frankel, 2008). Nursing leaders in clinical units promote positive patient-nurse interaction and support quality and safe patient care (Scott, 2011). Nurses with efficient leadership skills certainly play an active role in the development of professional attitudes, beliefs and roles as well as enhancing professional skills and competencies and creating an appropriate learning environment for nurses (Nasrin et al., 2012; Scott, 2011).

Leadership has been a crucial research topic in nursing for years. A literature review revealed a great many number of studies on understanding the leadership in nursing from a variety of perspectives. Kusakli and Bahcecik (2012) carried out a study on the emotional intelligence and leadership practices in nursing; Dewar et al. (2019) investigated the development process of the transformational leadership support program for nursing home managers in Scotland. Balsanelli et al. (2018) studied leadership in nursing and its relation with the hospital work environment, Choi et al. (2018) focused on the impact of the educational leadership of executive nurses on medical team efficiency. Furthermore, Goh et al. (2018) examined the leadership styles of executive nurses and the perception of nurses towards various leadership styles. And yet again, bibliometric studies on the current situation in nursing have remained largely unsatisfactory.

Bibliometry is an approach to evaluation of research based on simply counting (Pendlebury, 2008). It is also defined as a method used in combination with mathematical and statistical techniques to examine scientific resources such as published journals, books, and etc. (Diodato, 1994). By using bibliometric analysis, the studies published in an academic field are evaluated in terms of research topics, years, institutions, keywords, number of authors, citations, common citations, etc.. These findings are particularly useful to conduct a cross-national and institution-based correlative analysis on various topics, to identify the most efficient authors and journals (Al and Tonta, 2004; Yalcin, 2010; Yozgat and Kartaltepe, 2009; Zan, 2012). Bibliometric analysis is an available retrospective method to assess previous studies but it may also serve to predict future developments in the field (Morris et al., 2002). In addition, bibliometric studies are crucial to follow up the progress of a scientific field (Xiao and Smith, 2009). Evaluating scientific studies in a certain field with reference to various parameters may yield a retrospective and prospective analysis of studies to delineate new research trends (Kozak, 1995).

Although there are many studies on leadership in nursing literature, the bibliometric study on this subject is limited.This study, therefore, aims to analyze the studies on leadership in

nursing with a bibliometric analysis. It is suggested that the study results will provide substantial data for further studies, provide guidance for future studies, and contribute to the development of scientific literature in this field.

2. METHODS

Study design and literature review

Retrospective descriptive design was used in this particular study and the research data were obtained from the Web of Science (WoS) database. The selection process of the studies is given in Figure 1.While searching for data in WoS, the "leadership" keyword was first searched in the "study title" section. As a result, 833 articles were found eligible that were conducted between 1970 and 2018. All these articles included in the study were individually evaluated by both researchers in terms of their compliance with the inclusion criteria and both researchers agreed on the studies to be included in the review. Consequently, the study included all studies which complied with the inclusion criteria, and which were published in international journals on leadership in nursing conducted until 2019.
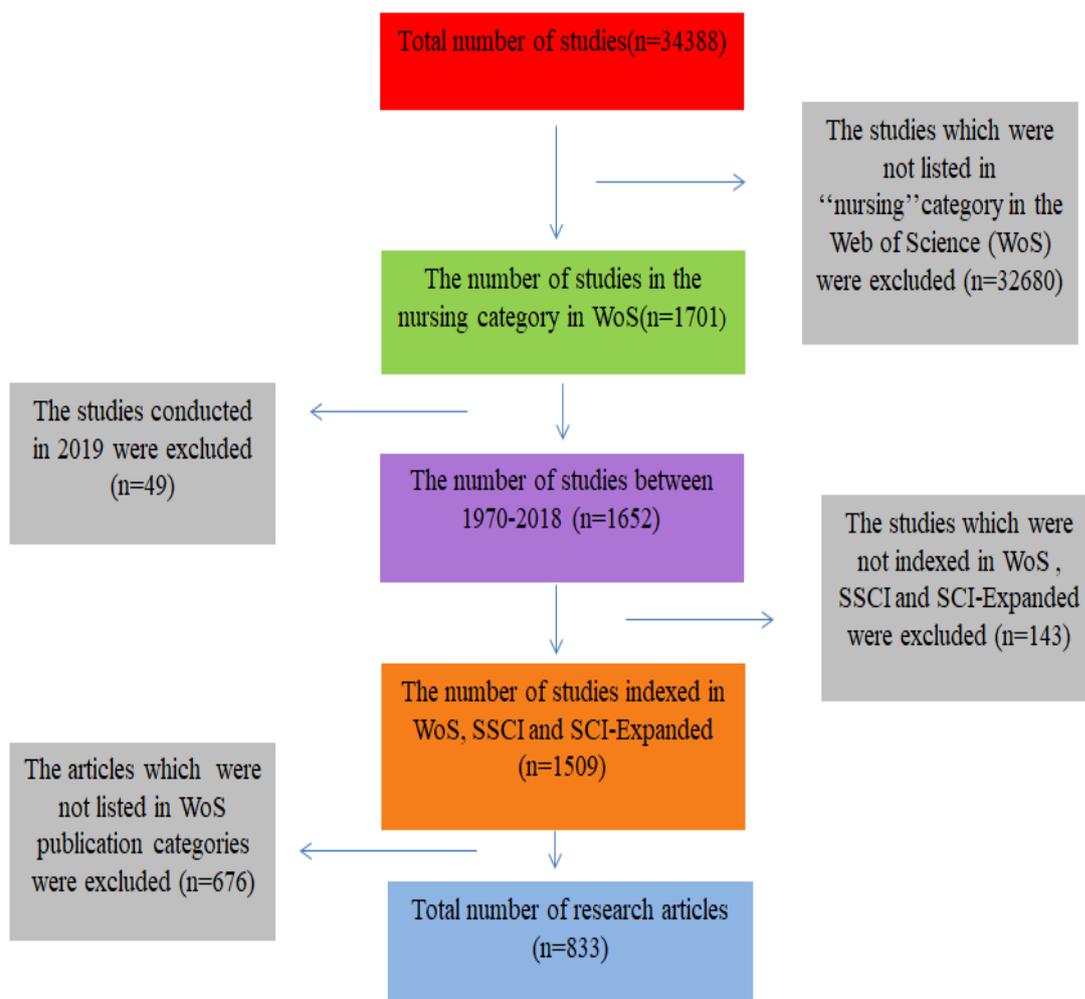

Figure 1. Study selection process flow diagram

Inclusion criteria

The inclusion criteria were determined to be as follows: The studies that would be included in the study must focus on leadership in nursing, they must be published before 2019, and they must be a research article indexed in SSCI and SCI-Expanded as listed in the WoS 'nursing' category (Figure 1).

Exclusion criteria

The studies that did not examine leadership in nursing, published after 2018, and which do not have a research article with SSCI and SCI-Expanded index in the WoS 'nursing' category are excluded from the scope of the research (Figure 1).
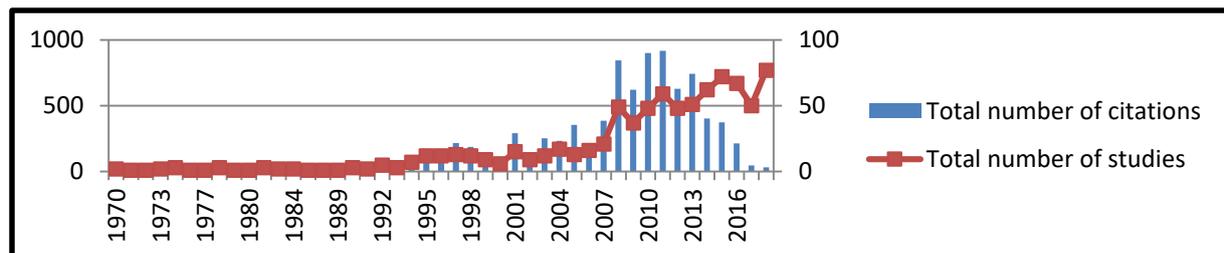
Data collection and analysis

Initially, 833 studies were selected and saved in a computer file before listed in Excel for data cleansing. The studies listed in the Excel document were checked for typographical errors and duplication and it was eventually found that there were spelling errors in the names of the authors and institutions. These errors were corrected by the researchers and the Excel document was converted to the appropriate file format to be used in Vosviewer program. The descriptive characteristics (institutions, journals, countries, citations, distribution of publications by years, etc.) were analyzed with Excel, and SPSS programs were used for the analysis of descriptive characteristics. Secondly, VOSviewer program was used to visualize the study data. Despite the fact that many computer programs are available to create and visualize bibliometric maps, VOSviewer is widely preferred by researchers because it is free to access and also allows to visualize big data (Van Eck and Waltman, 2010).

Ethical considerations

As the study is a literature review model, it has no direct effects on humans and/or animals and therefore, the researchers didn't seek any approval from the board of ethics.

3. RESULTS

Graph 1 illustrates the distribution of the number of studies and the total number of citations by years. The graph indicates that the studies included in the review were published between 1970-2018. It was also found that the number of studies ranged from 1 to 77, and that the highest number of publications were produced in 2018. The total number of citations varied from 1 to 916 until 1 May 2019 (when the literature search was conducted). The studies received only 1 citation in total in 1977, 1979, 1989 and 1989 while they received 916 citations in total in 2011, the highest number of citations in all these years.

Graph 1. The distribution of number of studies and total number of citations by years.

An analysis of the publication language further showed that 98.7% of the research articles ere published in English followed by Korean (0.007%), German (0.003%), and Portuguese (0.003%).

Figure 2 presents a network of countries producing more than five publications. These studies were produced by 51 countries in total and the most productive countries were the United States (467 studies), Australia (86 studies), Canada (77 studies); and Turkey was ranked number 19 with 5 studies.
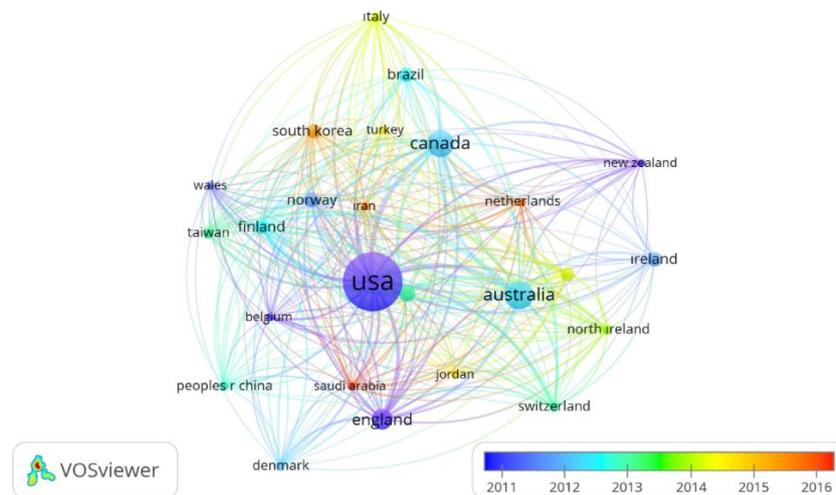

Figure 2. The network of countries that produced more than five publications

Figure 3 shows the network of journals with more than 10 publications. It was noted that the studies were published in 89 different journals and the Journal of Nursing Administration (149 studies), Journal of Nursing Management (130 studies) and Journal of Advanced Nursing (41 studies) were found to be the most productive journals.
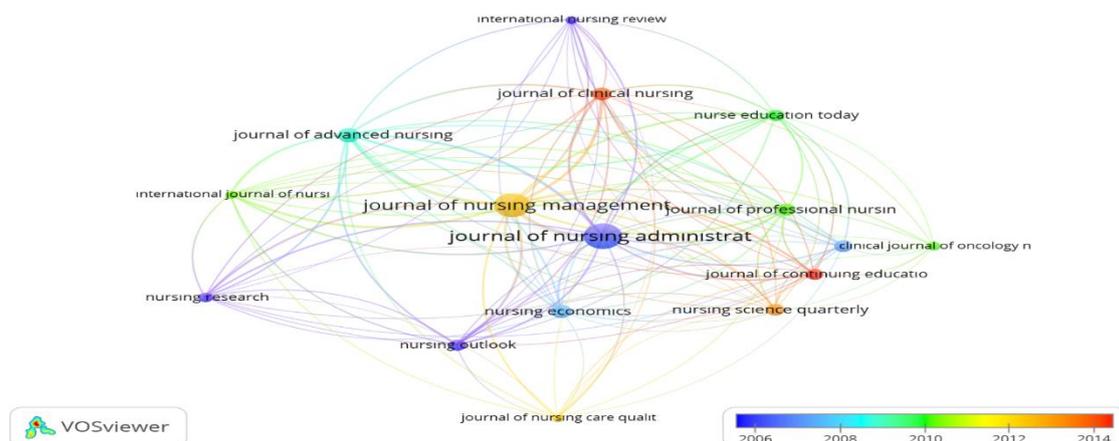

Figure 3. The network of journals with more than 10 publications

The study results also demonstrated that these studies were produced in 968 different institutions and the most productive institutions were Western Ontario University- Canada (29 studies), Western Sydney University- Australia (18 studies) and Sydney Technology University- Australia (15 studies). Hacettepe University (2 studies), Ege University (1 study),

Dokuz Eylul University (1 study) and Koc University (1 study) in Turkey also contributed to the scientific literature on leadership in nursing.

Table 1 indicates the distribution of top five studies by the number of citations. The studies included in the analysis received 8606 citations and the most cited article was entitled "Leadership, Organizational Stress, and Emotional exhaustion Among Hospital Nursing Staff" with 173 citations.

Table 1. The distribution of top five studies by the number of citations.

Studies	Number of citations	% of 8606
1. Stordeur, S., D'hoore, W., & Vandenberghe, C. (2001). Leadership, organizational stress, and emotional exhaustion among hospital nursing staff. Journal of Advanced Nursing, 35(4), 533-542.	173	20.1
2. Wong, C. A., Spence Laschinger, H. K., & Cummings, G. G. (2010). Authentic leadership and nurses' voice behaviour and perceptions of care quality. Journal of Nursing Management, 18(8), 889-900.	124	14.4
3. Laschinger, H. K. S., Finegan, J., & Wilk, P. (2009). Context matters: The impact of unit leadership and empowerment on nurses' organizational commitment. Journal of Nursing Administration, 39(5), 228-235.	120	13.9
4. Giallonardo, L. M., Wong, C. A., & Iwasiw, C. L. (2010). Authentic leadership of preceptors: predictor of new graduate nurses' work engagement and job satisfaction. Journal of Nursing Management, 18(8), 993-1003.	113	13.1
5. Morrison, R. S., Jones, L., & Fuller, B. (1997). The relation between leadership style and empowerment on job satisfaction of nurses. Journal of Nursing Administration, 27(5), 27-34.	105	12.2

Figure 4 illustrates the network of most frequently used keywords (more than 10 times at least) used in all studies. It was reported that 1212 keywords in total were used in these studies and the most common keywords were leadership (206 times), nursing (76 times), transformational leadership (43 times) and nursing leadership (42 times).
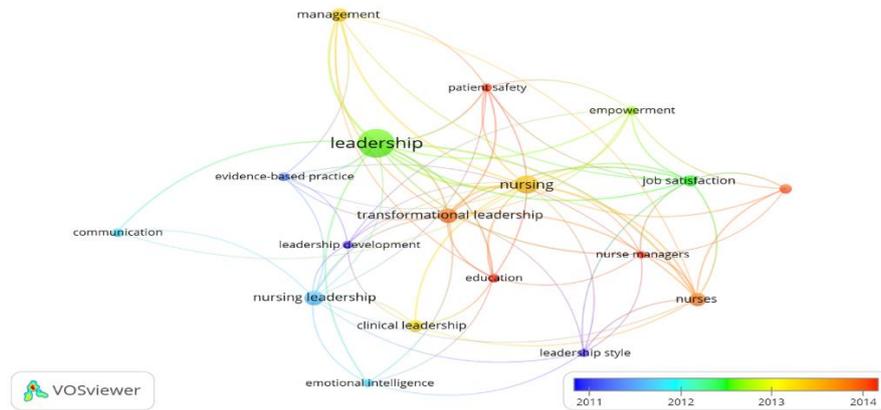
Figure 4. The network of most frequently used keywords (more than 10 times at least)

Figure 5 shows the network of terms (top 20) used in the abstracts. It was noted that 11436 terms in total were used in the study abstracts and the most frequent terms were leadership (458 times), nurse (382 times), research (335 times), leader (275 times) and care (216 times).
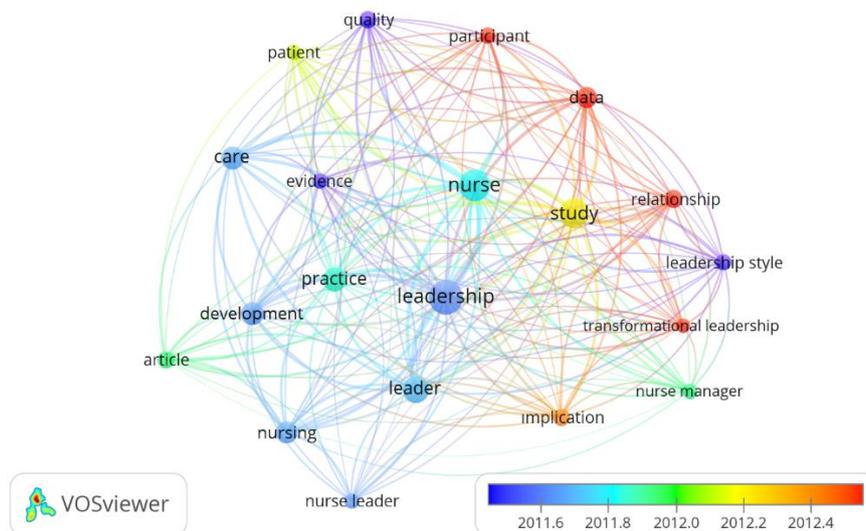

Figure 5. The network of terms (top 20) used in the abstracts

4. DISCUSSION

In this study, the studies about leadership in nursing were evaluated in regard to their bibliometric characteristics, which eventually aimed to map out the growing interest in leadership in nursing on a national and international scale. In order to derive in-depth and holistic data on leadership in nursing literature, the analysis deliberately focused on the number of publications, publication language, authors' institutions, most productive scientific journals and countries, the number of citations, keywords and the network of terms.

The total number of citations and the number of studies of leadership-related studies in nursing were analyzed by years and it was found that the highest number of publications was

produced in 2018. It was also noted that the number of studies gradually increased while there was a noteworthy decrease in the total number of citations in recent years, which might be related to the fact that it will take years for recent studies to be widely accessed and cited and the number of citations they receive will reasonably increase in due course. That the number of studies reached a peak in 2018 confirms the increasing interest in leadership in nursing.

The major institutions and their contribution to these studies were also analyzed and it was noted that researchers from 968 different institutions published researches on leadership in nursing. In institution-based comparisons, it was found that most of the articles were written by researchers from foreign countries, which already affirms that scientific literature on leadership in nursing is corroborated with scientific contributions at an international level rather than national level.

When the countries that guide the field of study are analyzed, it is determined that the most productive country is USA in the researches related to leadership in nursing. Similarly, in two systematic review studies on leadership, it was stated that most of the included studies were produced by USA (Cummings et al., 2010; Hafsteinsdóttir et al., 2017). In addition, in previous bibliometric studies, USA was found to be the most productive country (Hutchinson et al. 2017; Chen et al., 2010). Considering the number of researchers and the support provided to the researchers, USA can be interpreted as expected to be the most productive country.

It was further reported that the articles on leadership in nursing were mostly published in two leading journals, the Journal of Nursing Administration and the Journal of Nursing Management. The keywords of these studies were also analyzed and it was found that the most common keywords were leadership, nursing, transformational leadership and nursing leadership. Although keywords are commonly considered to provide insight into the research topic, it was concluded that the research topics were not diversified and these studies were deliberately specific to the field of nursing focusing on similar research topics.

It wouldn't be reasonable to suggest that the findings of this particular study obtained only from WoS databases represent a wide range of literature on leadership in nursing, which is, indeed, a significant limitation of this analysis. Besides, it is certainly considered that the researches on leadership in nursing will be enriched with developing an interdisciplinary methodology and assuming a multiperspective approach in nursing studies. It is further recommended that nursing researchers be referred to international journals indexed in international citation indexes in order to enhance the number and quality of publications on leadership in nursing from Turkey besides collaborating with researchers from different fields to develop an interdisciplinary methodology and approach to nursing studies.

5. CONCLUSION

The findings of this particular study indicate that a majority of the studies on leadership in nursing were produced in the United States, that the Journal of Nursing Administration was the most popular journal on leadership in nursing topic, and that the most frequently used keywords in these studies were "leadership", "nursing", "transformational leadership", and "nursing leadership". The bibliometric findings of this research are of utmost significance with regard to following up the development of scientific literature on leadership in nursing as well as gaining insight into the trends and the formation of the current researches. It is also suggested that taking the results of this particular review into consideration while planning and publishing future studies will contribute to the production of knowledge on leadership in nursing.

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