



ACADEMIC SUCCESS STUDIES IN NURSING STUDENTS: BIBLIOMETRIC ANALYSIS

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Abstract

The aim of this study is to examine the academic achievement of nursing students in terms of bibliometric characteristics. Retrospective descriptive design was used in the study. Online databases were reviewed to get to work. The keywords "academic success", "academic achievement", "academic performance", "nurse student" and "nursing student" were used in English. As a result of the review, 101 studies have been reached and 94 of these have met inclusion criteria. The data were analyzed using Microsoft Excel and UCINET (NetDraw) programs. It was determined that the studies were produced by 24 different countries between 1985-2017 and the majority of them were research articles. The United States (33 studies) was the most productive country, Nurse Education Today (28 studies) was the most productive journal, and Yenna Salamonson (10 studies) was the most productive author from Australia. The most commonly used key words in the study were "academic performance", "academic success", "nursing student", "nursing education". The study will provide a guide for researchers to show the general characteristics of the literature on academic success of nursing students.

Keywords: Academic Success, Nurse Student, Nursing, Social Network Analysis, Bibliometric Analysis.

INTRODUCTION

Academic success is referred as a criterion used to identify students' achievements in their studies (Ahmad and Bruinsma, 2006). Academic success is the prerequisite for nursing students to graduate from training programs, but also a major obstacle they must overcome during their training process (CPEC, 2003). Academic failure among nursing students is one of the crucial factors leading to drop-out (Abele et al., 2013). Kantek (2010) found out in a study that reasons for dropout among nursing students was examined that 64% of students leaving school voluntarily had an academic achievement rate below 2.00 (low).

In recent years, the high dropout rates have become a major source of concern for nursing education (Ferguson, 2013; Last and Fulbrook, 2003; Ten Hove et al., 2017). Dropout not only leads to loss of potential nurses but also negatively affects attracting successful students towards nursing profession as a career. Besides, it results in an increase in nursing education costs in terms of nursing education institutions (Ferguson, 2013; Glossop, 2002; Masango, 2014; Ten Hove et al., 2017). Therefore, there is an increase in interest in studies conducted towards understanding nursing students' academic success and factors affecting their academic success. Analysing the literature, it can be seen that there are many studies conducted towards understanding nursing students' academic success from different perspectives (Gemeay et al., 2015; Guerra-Martin et al., 2017; Heidari et al., 2017; Mackintosh-Franklin, 2018; Vizeshfar and Torabizadeh, 2018). However, it has been noted that there are not any bibliometric studies revealing the current situation on this subject.

In this study, the objective is to reveal current knowledge structure about nursing students' academic success by using bibliometric method. It is considered that results to be obtained from the study will constitute a knowledge basis for future studies, will be a guide for new studies and contribute to the field literature in terms of improving studies.

METHOD

Research design and literature review

In the research, retrospective descriptive research model was used. Web of Science, Scopus, Pubmed, EBSCO Host, Google Scholar, ScienceDirect, Medline, Sage Journals, Wiley Online Library databases were reviewed to reach studies conducted in the field of academic success in nursing students. In the scan, 'academic success', 'academic achievement', 'academic performance', 'nurse student', 'nursing student' keywords were used in English. As a result of scan, 101 studies conducted during 1985-2017 were found. All articles reached within the scope of this study were separately analysed by both researchers in terms of compatibility with inclusion criteria. Consensus was achieved on all studies. 94 studies related to academic success among nursing students published in the relevant international literature and compatible with inclusion criteria were included in the study.

Inclusion criteria

The inclusion criteria were analysis of academic success among nursing students, full text articles published in English language until 2018. Besides, online published articles were included in the study, theses and conference papers were excluded from the scope.

Data collection & analysis

To collect data for the study, data coding form created by researchers was used. Title, name of author/authors, number of authors, year of publication, type of publication, country of study, name of journal where article was published, keywords and number of citations were coded in the data coding form. While analyzing keywords, words with the same meaning such as "academic success" and "academic achievement" and words with similar meanings such as "nursing student", "nursing students", "student nursing", "students nursing" were collected under the same group. Also, in examined variables, words with closer meaning such as "learning approaches" and "learning strategies" were combined in the same group. Microsoft Excel software was used for analysis of data. UCINET (Netdraw) software was used in visualization of data. Before the creation of keyword network, all keywords were listed, and a word network matrix was established with words used two or more times.

Ethical Considerations

Since the study is in literature review model, it does not have direct affect on people and/or animals. Therefore, no approval was required from the Board of Ethics.

FINDINGS

Table 1: Some Characteristics of Studies

Year of publication	Number	%
1985-1994	4	4,3
1995-2004	14	14,9
2005-2014	47	50,0
2015-2017	29	30,8
Type of publication		
Article	89	94.7
Review	5	5.3
Number of authors		
Publication with a author	17	18.0
Publication with two authors	18	19.1

Publication with three authors	23	24.4
Publication with four authors	19	20.2
Publication with five authors	13	13.8
Publication with six authors and more	4	4.25
Citation status of the publication		
Number of cited publications	86	91.5
Number of non-cited publications	8	8.5

It was determined that 94 studies included in the study were published between 1985-2017; years between 2005-2010 were the most productive years with 47 studies, studies conducted on academic success have increased as per years. In addition, it was found that 94.7% of the studies were articles, 24.4% of them were with three authors, and 91.5% of them received citation (Table 1).

Table 2: 10 Most Cited Studies

Number	Publication name	Number of citations	% of 3761
1	Pimparyon, S. M Caleer, S. Pemba, S. Roff, P. (2000). Educational environment, student approaches to learning and academic achievement in a Thai nursing school. <i>Medical Teacher</i> , 22(4), 359-364.	284	7.55
2	Salamonson, Y., Andrew, S. (2006). Academic performance in nursing students: Influence of part - time employment, age and ethnicity. <i>Advanced Nursing</i> , 55(3),	174	4.62
3	Ofori, R., Charlton, J. P. (2002). A path model of factors influencing the academic performance of nursing students. <i>Journal of Advanced Nursing</i> , 38(5), 507-515.	143	3.80
4	McCarey, M., Barr, T., Rattray, J. (2007). Predictors of academic performance in a cohort of pre-registration nursing students. <i>Nurse Education Today</i> , 27(4), 357-364.	137	3.64
5	Potolsky, A., Cohen, J., Saylor, C. (2003). Academic performance of nursing students: Do prerequisite grades and tutoring make a difference?. <i>Nursing Education Perspectives</i> , 24(5), 246-250.	115	3.05
6	Al - Kandari, F., Vidal, V. L. (2007). Correlation of the health - promoting lifestyle, enrollment level, and academic performance of College of Nursing students in Kuwait. <i>Nursing & Health Sciences</i> , 9(2), 112-119.	114	3.03
7	Fernandez, R., Salamonson, Y., Griffiths, R. (2012). Emotional intelligence as a predictor of academic performance in first - year accelerated graduate entry nursing students. <i>Journal of Clinical Nursing</i> , 21(23-24), 3485-3492.	111	2.95
8	Newton, S. E., Smith, L. H., Moore, G., Magnan, M. (2007). Predicting early academic achievement in a baccalaureate nursing program. <i>Journal of Professional Nursing</i> , 23(3), 144-149.	109	2.89
9	Salamonson, Y., Everett, B., Koch, J., Andrew, S., Davidson, P. M. (2008). English - language acculturation predicts academic performance in nursing students who speak English as a second language. <i>Research in Nursing & Health</i> , 31(1), 86-94.	107	2.84
10	Salamonson, Y., Andrew, S., Everett, B. (2009). Academic engagement and disengagement as predictors of performance in pathophysiology among nursing students, <i>Contemporary Nurse</i> , 32 (1-2), 123-32.	97	2.57

The most cited studies are given in Table 2. It was determined that studies discussing nursing students' academic success had received a total of 3761 citations until March 25, 2018. The study conducted by Pimparyon S.M, Caleer S, Pemba S and Roff, P. in 2000 with the title "Educational environment, student approaches to learning and academic achievement in a Thai nursing school" and published in Medical Teacher received the highest number of citation. In addition, the five of the most cited studies were produced by Salamonson Y.

Table 3: The Most Productive Countries

Country*	Number	%
USA	33	35.1
Australia	14	14.9
Saudi Arabia	6	6.38
South Africa	4	4.25
Canada	4	4.25
England	4	4.25
Italy	3	3.19
Malaysia	3	3.19
Turkey	3	3.19

* Countries with two or fewer publications

In Table 3, the most productive countries are given. It was determined that studies conducted on nursing students' academic success were produced in 24 different countries, %35.10 of these studies were conducted in USA and % 14.9 of them were conducted in Australia.

Table 4: The Most Productive Journals

Journal title*	Number	%
Nurse Education Today	28	29.7
Journal of Nursing Education	7	7.4
Teaching and Learning in Nursing	7	7.44
Journal of Professional Nursing	5	5.31
Nursing Education Perspectives	5	5.31
Contemporary Nurse	3	3.19
Nurse Educator	3	3.19

* Journals with three or more publications

It was reported that studies were published in 36 different journals. Journals with most studies published on nursing students' academic success were noted as Nurse Education Today (28 studies), Journal of Nursing Education (7 studies) and Teaching and Learning in Nursing (7 studies) (Table 4).

Table 5: Most Productive Authors and Countries

No	Author name (Country)	Number	%
1	Yenna Salamonson (Australia)	10	3.83
2	Bronwyn Everett (Australia)	6	2.29
3	Jane Koch (Australia)	4	1.53
4	Patricia M. Davidson(USA)	4	1.53
5	Sharon Andrew (Australia)	4	1.53

It was further stated that a total of 94 studies were produced by 261 different authors. Among these authors, Yenna Salamonson from Australia (10 studies) and Bronwyn Everett (6 studies) were identified as the most productive authors (Table 5).

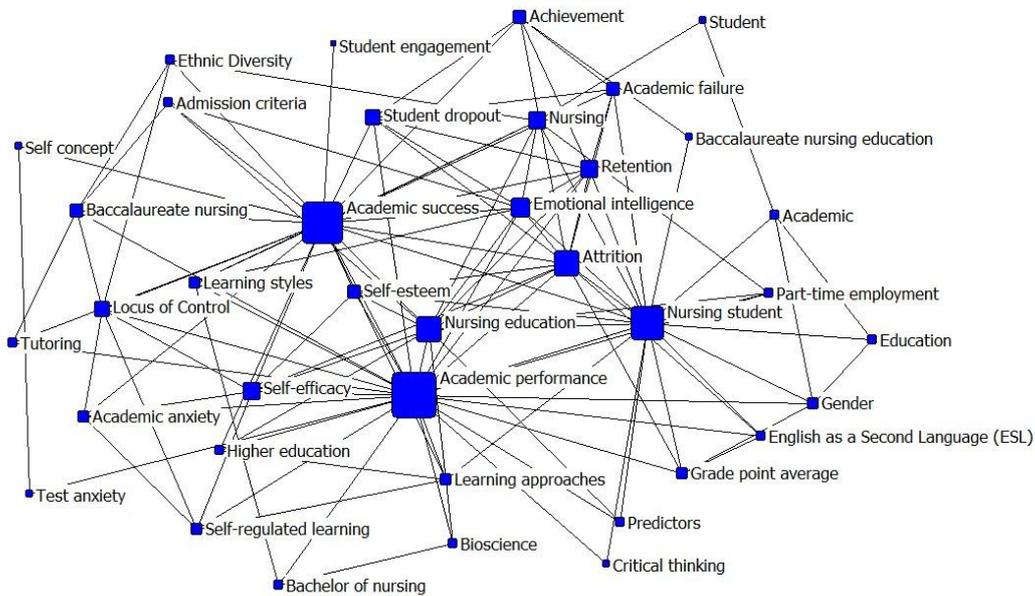


Figure 1: Common Word Network

Common work network related to keywords of studies can be seen in Figure 1. It was indicated that the most frequently used keywords were “academic performance”, “academic success”, “nursing student”, “nursing education” and there was not a strong network structure.

DISCUSSION AND CONCLUSION

In this bibliometric study, studies under nursing students’ academic success title and published between 1985-2017 were examined in terms of year of publication, number of publications, publication type, citation status, most productive authors, most productive countries, most productive journals and most productive keywords. Amount of publications is a significant indicator in terms of showing productivity in a field of study (Scott et al., 2010). Findings have revealed that there was a positive increase in the number of publications as per year, publications showed the feature of multi-authorship, and most of them consisted of articles. This increase in numbers can be interpreted as a positive outcome since this subject field has attracted many researchers and this is a productive field.

Another indicator showing the importance of a field or subject is the number of citations. The number of citations is important from the point of showing the state of use for studies produced in a certain field (Al and Soydal,2011; Sağıroğlu et al.,2015; Zeleznik et al., 2017). In the research, it was found that studies were cited at a high rate of 91.5% and the total number of citations was 3761. In addition, an analysis mostly cited studies demonstrated that these citations were towards determining variables predicting nursing students’ academic success. These results have supported our suggestion that subject of academic success is a productive and popular field.

Findings have revealed that the most productive countries were USA and Australia, the most productive journal was Nurse Education Today, the most productive author was Yenna Salamonson, and the most productive keywords included “academic performance”, “academic success”, “nursing student” and “nursing education”. The most productive ones in a field reveal authors, countries and journals leading this field (Güzeller and Çeliker, 2017; Hotamışlı and Erem ,2014). Therefore, it can be said that American and Australian authors and the journal Nurse Education Today lead the studies on nursing students’ academic success. In addition, the fact that the most frequently used keywords were related to nursing students and academic success has shown that this field needs examining in a



distinct perspective. Researchers who will study on this subject will work faster on their publications if they consider these characteristics while interpreting current research results and choosing journals for their publications.

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