Abstract

Purpose: The purpose of this study was to analyze papers on the self-leadership of nursing students, which were included in domestic academic journals over the past 15 years, in an attempt to determine the research trend. Methods: This is a descriptive research study that analyzed 41 papers included in domestic academic journals over the past 15 years (2003-2018). Results: The studies related to self-leadership of nursing students numbered five (12.2%) between 2009 and 2014 and 36 (87.8%) between 2015 and 2018. As to the distribution of the papers by journal, 10 papers (24.3%) that were largest in number were included in the Journal of Korea Academia-Industrial Cooperation Society. Concerning variables related to self-leadership, critical thinking disposition was a major variable that was covered in 10 papers (24.3%) that were largest in number, and another major variable was self-efficacy that was covered in seven (17.5%). As a result of analyzing the papers by research method, every study was quantitative research that numbered 41 (100%). Out of them, the descriptive research studies were most common, and the experimental studies numbered 17 (17.0%). In regard to sample size determination, G*Power was used the most in 31 papers (75.6%). Regarding institutional review board, eight (19.5%) out of the 41 papers were implemented with the approval of IRB. As for data analysis in the studies using descriptive statistics, t-test was used mainly in 35 papers (85.3%); ANOVA, in 26 (63.4%); Pearson correlation coefficient, in 26 (63.4%). In the experimental studies, x2-test was dominant, which was used in 10 papers (24.3%). Conclusion: The findings of the study are expected to provide some information on how to nurture the self-leadership of would-be professional nurses to step up their competency development to affect their clinical performance in a positive way and on how to set the right directions for the development of nursing to make a contribution to the improvement of the quality of nursing.

[Keywords] Nursing Students, Self-Leadership, Domestic Research Trend, Analysis, In Republic of Korea

1. Introduction

A core task in college years for successful entry into society is to lay the foundation for growth by building one's own identity and by making the right career choice[1].

Due to the relatively high employment rate, many nursing college students had their sights set on finding a job easily or economic stability when they chose their major, instead of taking their own aptitude and interest into account or carefully considering what major they should choose[2]. Moreover, they think they have already chosen their occupation as soon as they enter college, and they just follow the typical path toward hospital employment without discreetly deliberating on their career or attempting to approach it in diverse ways[3].

The goal of nursing education is to teach nursing students to be equipped with the core competencies that are necessary to
perform their roles well as professional nurses after graduation[1]. Leadership is defined by Korea Institute for Curriculum and Evaluation(2013) as one of the core nursing competencies that nursing students should have before they graduate. In order to properly respond to and cope with the situations they face during clinical practice, they are in need of self-leadership that features autonomy which stimulates oneself to exert leadership from within, not the existing kind of leadership that is disposed to be heteronomous[2].

Self-leadership, which is an autonomous leadership, can be said to mean an influence that organizational members wield on themselves to motivate them to perform their duties and carry out instructions. That is, it can be said that it refers to the kind of leadership that makes one take the initiative in himself or herself[4]. As the recent advancement of medical technology has heightened expectations for medical services, the members of a nursing organization is definitely required to develop their leadership, and self-leadership that can lead to successful problem solving or creative job performance is increasingly emphasized[5].

In particular, it’s quite critical for nurses to have good relationships with people around them because their occupation is to deal with humans. Relationships with patients, caregivers and doctors and relationship building in the nursing organization are direct causes of stress, tension and anxiety, and furthermore, these things may provoke turnover. So leadership is one of the crucial competencies for nurses to have to improve their occupational adjustment and quality of life[4]. It’s reported that self-leadership is linked to nursing performance, and that better self-leadership is followed by better nursing performance[6][7][8].

Han & Yu[9] argued that when self-leadership is better, there are less stress, less tension and less anxiety that are caused by relationships with patients, caregivers and doctors and by relationship building in the nursing organization, and that what’s more, turnover may be decreased. Thus, self-leadership is one of the vital competencies that nurses should have to ensure their successful occupational adjustment and quality of life.

Indeed, self-leadership enables nursing students to achieve results by mapping out a higher-level employment strategy and by learning with interest. That encourages them to be more satisfied with their department, to be responsible for themselves and to pursue their goal with autonomy and enthusiasm[8]. Self-leadership has such a great positive impact on personal growth and assists college students in improving their competencies. Therefore lots of research efforts should be channeled into that from diverse angles. An analysis of domestic research trend is one of the ways to extend the sphere of the body of knowledge in a discipline, and it is said to be of great importance to analyze earlier studies, synthesize the findings, confirm the accumulated knowledge and explore the right directions for future research and for the creation of a new body of knowledge[7]. As no analytic research on the self-leadership of nursing students has yet been implemented, it will be of use for the development of future self-leadership research when studies of self-leadership that is part of leadership are analyzed in a synthetic and systematic way to inquire into the research trend. This study was implemented to analyze the trend in studies on the self-leadership of nursing college students presented in our country between 2000 and July of 2018 according to the selected classification criteria in order to discuss what implications the studies would have for future challenges and the right directions for research into the self-leadership of nursing students.

Purpose

The purpose of this study was to analyze the trend in domestic studies on the self-leadership of nursing students and to suggest some of the right directions for future research. To be specific, the purpose of the study was three-fold:

1. Analyze the types of domestic studies on the self-leadership of nursing students by year and the research designs of the studies by research type.
2. Investigate the concepts, instrumentation and analysis methods of the studies.

3. Suggest some of the right directions for research into the self-leadership of nursing students in the future.

2. Experimental Methods

2.1. Research design

This study is a descriptive research to analyze the research trend in papers whose themes were related to the self-leadership of nursing students.

2.2. The subjects and data collection

41 papers were analyzed, which were found to have been presented in our country between 2003 and July of 2018 and were related to the self-leadership of nursing students. As for the retrieval of the papers, Korea Education and Research Information Service, the National Assembly Library, Korean Studies Information Service System, the National Digital Science Library and the databases of academic journals that were under the umbrella of Korean Society of Nursing Science including the Journal of Korean Academy of Nursing were used to do searches by words that were self-leadership, the self-leadership of nursing students, the leadership of nursing students and nursing self-leadership.

The papers that were discovered were analyzed to find out about their sources, subjects, intervention methods and findings. Among the papers, the papers whose original texts were impossible to collect were excluded.

2.3. Data analysis

The collected papers were classified and analyzed according to the research trend analysis of You, So and Kim[10], and the analysis method was modified and complemented in part by this researcher as occasion demanded.

1. As for the time for the implementation of the research, the studies were divided by five-year time period depending on when they were conducted, and the types of the studies were classified again by the types of the journals that carried them.

2. In regard to research design, the studies were classified into quantitative research, qualititative research and other research. The quantitative studies were classified into two: the studies of experimental design and those of non-experimental design, and the studies of non-experimental design were classified into research studies and other studies.

3. The major concepts, related concepts, specific designs, analysis methods and instruments that were used in the studies were all analyzed.

3. Results

3.1. The type of the studies by year

There were no papers on research into the self-leadership of nursing students before 2003. Five studies(12.2%) were carried out between 2009 and 2014, and there has been a rapid increase in the number of the studies since 2015, as 36 studies(87.8%) were conducted between 2015 and 2018 <Table 1>.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publication year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2009-2014</td>
<td>5</td>
<td>12.2</td>
<td></td>
</tr>
<tr>
<td>2015-2018</td>
<td>36</td>
<td>87.8</td>
<td></td>
</tr>
</tbody>
</table>

3.2. The distribution of the papers by journal

As for the distribution of the papers by journal, there were 10 papers(24.3%) from the Journal of Korea Academy-Industrial Cooperation Society; eight(19.5%), from the Journal of Korea Nursing Education Association; four(9.75%), from the Journal of the Korean Data Analysis Society; three(7.3%), from the Journal of the Kore-an
Academy of Nursing Administration; two(4.87%), from the Journal of Digital Convergence; two(4.87%), from the Korean Journal of Health Service Management; two(4.87%), from the Journal of Korea Entertainment Industry Association; two(4.87%), from the Journal of Korea Academy of Psychiatric Mental Health Nursing, and one each(2.4%), from the Journal of Korea Wellness Society, the Journal of Basic Nursing Academy, the Journal of Ewha Women’s University Nursing Academy, the Journal of the Korean Society of Nursing Science, the Journal of the Korean Society of Clinical Health Science, the Journal of the Korean Society of Humanities and Sociology, the Journal of East-West Nursing Research Institute, the Journal of Health Informatics and Statistics, and Traffic Culture Research <Table 2>.

Table 2. Type of research according to published journal(n=41).

| Published journal                                      | Variable                                                                 | n   | %
|--------------------------------------------------------|--------------------------------------------------------------------------|-----|-----
| - Journal of Korea Academy-Industrial Cooperation Society | - Journal of Korea Nursing Education Association                             | 10  | 24.3|
| - Journal of the Korean Academy of Nursing Administration| - Journal of Digital Convergence                                           | 4   | 9.75|
| - Journal of Ewha Women’s University Nursing Academy    | - The Korean Journal of Health Service Management                           | 3   | 7.3 |
| - Journal of Basic Nursing Academy                      | - Journal of the Korean Society of Clinical Health Science                | 1   | 2.4 |
| - Journal of the Korean Society of Humanities and Sociology| - Journal of East-West Nursing Research Institute                         | 1   | 2.4 |
| - Journal of Health Informatics and Statistics           | - Journal of Health Informatics and Statistics                             |     |     |
| - Traffic Culture Research                               |                                                                         | 41  | 100 |

3.3. Analysis by research theme

The themes of the studies were analyzed by selecting research variables based on titles and keywords that were presented in the literatures, and 45 theme words that repeatedly appeared in the studies were extracted <Table 3>. Concerning the distribution of variables related to self-leadership, critical thinking disposition was covered in 10 studies(25%); self-efficacy, in seven(17.5%); stress over clinical practice and view of the nursing profession, in four each(10%); interpersonal relationships, satisfaction with college life, career decision-making self-efficacy, and college adjustment, in three each(7.5%);
stress- coping skills, academic self-efficacy, self-directed learning, ego-resilience, empowerment, clinical performance, problem-solving skills and ego-identity, in two each(5%): other, in one(2.5%) <Table 3>.

Table 3. The types of the studies by keyword(n=41).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Critical thinking disposition</td>
<td>10</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Self-efficacy</td>
<td>7</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Stress over clinical practice, Satisfaction with clinical practice, View of the nursing profession</td>
<td>4</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>Interpersonal relationships, Career decision-making self-efficacy, College adjustment</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Academic self-efficacy, Stress-coping skills, Clinical performance, Satisfaction with college life, Self-directed learning, Ego-resilience, Empowerment, Problem-solving skills, Ego-identity</td>
<td>2</td>
<td>4.8</td>
</tr>
<tr>
<td></td>
<td>Decision-making style, Confidence performance, Personality traits, Career preparation behaviors, Career decision level, Professor-teacher interactions, Positive emotions, Perceived career barriers, Empathy skills, Mentoring experience, Self-leadership, Learning awareness, Information literacy, Emotional intelligence, Resilience, Leadership life skills, Self-esteem, Professional self-concept, Mental health, Self-esteem, Communicative competency, Nursing performance, Meta-cognition, Achievement functions, Learning flow, Debriefing satisfaction, Self-exposure, Employment stress</td>
<td>1</td>
<td>2.4</td>
</tr>
</tbody>
</table>

3.4. Analysis by research design

As a result of analyzing the papers according to the selected research method, the quantitative studies numbered 41(100%). Every study was quantitative research. Among these studies, 34 studies(82.9%) that were non-experimental research were descriptive research studies that were largest in number, and the experimental studies numbered 17(17.0%) <Table 4>.

Table 4. The types of the studies by design(n=41).

As to the descriptive research studies, the research studies numbered 29(70%), which was the largest number. Among the experimental studies, nonequivalent control group pretest-posttest experimental design was used in four(9.7%) that were largest in number.

In terms of measurement, no studies reported validity, and five studies(12.1%) reported reliability. The sample sizes were determined by G*Power in 31 studies(75.6%), which was the most common case. As to institutional review board, eight(19.5%) out of the 41 papers received the IRB approval. Concerning data analysis in the studies using descriptive statistics, t-test was mainly carried out in 35 studies(85.3%); ANOVA, in 26(63.4%); Pearson correlation coefficient, in 26(63.4%); Scheffe test, in 20(48.7%). In the experimental studies, x2-test was used a lot in 10 studies(24.3%); paired t-test, in three(7.3%); Fisher's exact test, in three(7.3%); Sobel test, in three(7.3%).
interest, and that it has positive im-

pacts on their personal growth by stimulating

them to be satisfied with the nursing depart-

ment and keep on going. When the research
trend in nursing science papers related to self-

leadership that were published in our country
was analyzed, there had been no papers of this
approach before 2003, but the number of these
papers tended to rapidly in-crease up to 36(87.8%). It seemed that this phenomenon re-

lected social needs for nursing and fast-growing
concern for the academic circles of nursing. As
nursing students started in 2015 to be employed
after undergoing clinical practice, self-leadership
is needed as one of the basic qualifications
of professional nurses, and the importance of it is increasingly stressed.

When the distribution of the papers by journal
was analyzed, 10 studies(24.3%) that were larg-
est in number were included in the Journal of Ko-
rea Academia-Industrial Cooperation Society,
and eight(19.5%) that were second largest in
number were included in the Journal of Korea
Nursing Education Association. The others were
mostly included in the journals of fields other
than nursing science. Because the weight of
leadership papers related to nursing students is
lately on the rise, more research efforts should
be directed into self-leadership, and efforts
should be made to have more papers included in
international journals as well as domestic nurs-
ing journals.

As a result of confirming the themes of the
studies, critical thinking disposition was most
widely covered as a variable related to self-lead-
ership in 10 studies (25%), followed by self-efficacy in seven (18.5%) and view of the nursing profession in four (10%). Studies found that there is a close correlation between critical thinking disposition and self-leadership [12][13]. Therefore when educational programs and extracurricular programs are developed to improve the self-leadership of nursing students, these programs should be designed to develop the kind of ability that is to analyze and criticize one’s own problems and foster positive thinking faculty [13]. Kim and Park’s study [14] found that self-efficacy is correlated with self-leadership. Self-efficacy is an autonomous power to enable oneself to be a high performer, and in order to boost the self-leadership of nursing students, intervention by a program geared toward bolstering self-efficacy seems to be necessary.

Ham & Kim’s [15] study found that view of the nursing profession affects self-leadership. Since the view of nursing students on the nursing profession might have a positive impact on their occupational satisfaction and adjustment after graduation, a variety of programs should be developed to improve their view of the nursing profession.

As to research design by the type of research, every study was quantitative re-search. Out of them, correlation studies were largest in number, which accounted for 50 percent or more. A few studies were experimental research, and there were neither qualitative research nor the other types of research [16]. To make a profound research into the nursing area related to self-leadership, it seems that re-searchers need to take various approaches.

In terms of research design, a genuine experimental study wasn’t conducted in any of the papers that were analyzed in this study. This is lower than the number of genuine experimental study in Shu, et. al.’s [15] study that was one. In order to provide evidence-based nursing, more genuine experimental studies have recently been implemented to offer the best evidence, and genuine experiment should be considered in the future.

As for institutional review board (IRB), eight papers (19.5%) underwent the procedures of institutional review. This number is high, whereas in Kim, et. al.’s [17] study, just 4.6 percent of the papers investigated underwent the procedures. Since ethical considerations are considered to be important in research, it seems necessary to undergo the procedures of institutional review by an institutional review board to take research to another level.

As for sample estimation, 31 papers (75.6%) estimated the sample sizes by G*Power. This rate is sort of high when it is compared to that of Kim, et. al. (2010)’s [17] study that stood at 30.1 percent. As grounds for an ideal sample size are expected to raise the quality of paper and to spread awareness of the appropriateness of sample size among researchers, the importance of sustained sample estimation should be taken into consideration.

In terms of data analysis, difference verification, which is to compare the averages of the selected variables, and relationship verification, which is to analyze by focusing on the relationships of the variables, were mostly put to use. Specifically, the studies that used correlation analysis and regression analysis to address the research questions were dominant. It’s necessary to research what variables regulate or mediate the relationships between self-leadership and other variables in nursing students by making a path analysis, which is increasingly used in the area of social sciences in recent years, and by making a model analysis, which is to test the model using structural equation modelling.

The above-mentioned findings of the study illustrated the domestic research trend in self-leadership. The competency of nursing students should be developed to foster their self-leadership, and there should be sustained efforts to take their self-leadership to another level as professional nurses.
This study has some limitations: First, it’s necessary to make an effort to vitalize nursing research related to the self-leadership of nursing students. Second, evidence-based research should be implemented in a systematic way.

5. Summary and Conclusion

Self-leadership enables individuals to achieve results by raising the level of their employment strategies and by learning with more interest, and it exerts a positive influence on their competency development as professional nurses.

In this study, nursing science papers related to self-leadership that were published in our country over the past 15 years from 2003 and 2018 were analyzed to determine the research trend. Since 2015, there has been a great increase in the number of self-leadership studies with the lapse of time. They were mostly descriptive research studies, and the subjects in the studies were mainly nursing students who experienced clinical practice. As for variables, critical thinking disposition, self-efficacy and view of the nursing profession were identified as major variables to affect self-leadership in a positive manner. As to research design, there was room for improvement in terms of ethical considerations or the securement of sample size. Given the findings of the study, research that is more objective and scientific in terms of research method and research variables should be conducted in the future.

This study is of significance in that it provided some information on how to foster the self-leadership of would-be professional nurses for their competency development to positively affect their future clinical performance and on how to set the right directions for the development of nursing to make a contribution to the improvement of the quality of nursing.

6. References

6.1. Journal articles


