**Research Article**

**Graduate Nursing Students’ Scholarly Writing: A Program Evaluation**

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**How to cite this article:** Vogt M, Coonfare L, Schaumleffel C (2021) Graduate Nursing Students’ Scholarly Writing: A Program Evaluation. Int J Nurs & Healt Car Scie 01(08): 2021-42.

**Submission Date:** 09 June, 2021; **Accepted Date:** 27 June, 2021; **Published Online:** 03 July, 2021

**Abstract**

**Introduction:** Graduate nursing students are often challenged when it comes to the process of scholarly writing. Nursing education focuses on clinical training and less on the professional role, which includes professional presence and presentation. Writing to meet the expected graduate student outcomes can be difficult for students due to lack of knowledge about format, and sentence structure and grammar.

**Purpose:** The purpose of this paper is to discuss the development, implementation, and evaluation of a scholarly writing class for graduate nursing students on writing skill acquisition.

**Methods:** The guiding framework for the Evidence-Based (EB) project was Knowledge-to-Action (KTA) Process Framework. A seven-week online professional presence and scholarly writing course that addressed topics of professional presence, communication, and writing was offered for students interested in participating in the course. A cohort of sixteen students signed up and completed the writing course; seventeen students chose not to participate in the course. For the writing course, student comprehension of learning was evaluated through a professional paper, poster and oral presentation. Further validation of the student’s understanding of scholarly writing was assessed through peer review of student papers, posters, and oral presentation. After the course was complete, a scholarly writing rubric was used to evaluate student’s knowledge of professional presence, communication, and writing. A scholarly paper from the Doctor of Nursing Practice (DNP) health policy course was reviewed. For comparison, the review evaluated papers from the writing course cohort and the cohort that opted out of the writing course. Thirty-three student papers were graded by a school of nursing faculty member unassociated with the writing course. To eliminate bias, the student papers were blinded; assigned random numbers and de-identified through the removal of student names and submission dates.

**Results:** No statistically significant differences were seen in the average scores between the students who had completed the writing course and those who had not.

**Conclusions:** Writing skills for graduate nursing students continue to be a challenge for both students and faculty evaluators even though several strategies have been employed. A stand-alone writing course may not be the most efficient way to improve writing skills in the graduate nursing student. The most effective method for improving student writing skills may be influenced by time, faculty workload, student commitment and cost.

**Introduction**

Graduate nursing students are often challenged when it comes to the process of scholarly writing. Although nursing education focuses on clinical training, symptom recognition and management of illness, less time is focused on the professional role, which includes professional presence and presentation. Writing to meet the expected graduate student outcomes can be difficult for students due to lack of knowledge about format, and sentence structure and grammar. Nurses are trained to write in medical records and not for publication. Scholarly writing is a competency that all nurses should master to elevate nursing presence in the health policy and advocacy arena [1]. The American College of Nurses identified clinical scholarship as an essential component in The Essentials in Doctoral Education for Nursing Practice Curriculum [1]. Graduate nursing faculty have a variety of strategies to help students improve writing skills, including the use of intensive feedback, assignment evaluation rubrics, tutorials and designated classes. Although there is some evidence that these strategies can improve the self-efficacy of graduate nursing student’s writing, there are few evidence-based strategies that evaluate the actual writing skills upon completion of a writing skills-related class. The purpose of this paper is to discuss the development, implementation, and evaluation of a scholarly writing class for graduate nursing students on writing skill acquisition.

**Background/Literature Synthesis**

A literature search was undertaken using the databases of Cumulative Index to Nursing and Allied Health Literature (CINAHL Plus), and Medline (PubMed) using key words of graduate, nursing student, and writing skills. These words were searched both individually and meshed and resulted in over 200 articles. Filters such as English language, published within the past ten years, and key words of nursing and evaluation were added to narrow the search, resulting in 51 articles. The 51 article abstracts were reviewed and narrowed to a final result of 21 articles.

Scholarly writing by graduate nursing students has been identified as a consistent and persistent problem by a number of authors [1-8]. Challenges in scholarly writing include both expression of conception concepts or ideas, as well as mechanical issues such as grammar, spelling or use of appropriate format. Although many graduate nursing students are excellent clinicians, many struggle with the concept of graduate level scholarly writing. This may be due in part to lack of writing skill education at the undergraduate level, or the lack of scholarly writing required in the clinical setting with the emergence of standardized documentation through the use of an electronic medical record. Nursing professional organizations and leaders have identified excellent communication skills, including both oral and written skills are critical nursing competencies [9,10] to provide appropriate patient education, interprofessional communication and demonstration of nursing professionalism. Excellent communication skills resulting in publication are also necessary for advanced career development in academia, university recognition and grant funding supplements [2]. Scholarly writing may not only demonstrate effective communication skills, but critical thinking and professionalism [7].

The literature reveals common issues in graduate nursing scholarly writing. The most common problems include structural or mechanical problems including grammatical or spelling errors, sentence structure, transitions and writing styles [3,5]. Other issues identified in graduate level writing assignments include lack of scholarly language, lack of professional, peer-reviewed cited references, and disorganization or lack of clarity [8]. Students are often challenged with synthesis of the literature or lack of coherence in explanations [3,4], several authors have identified facilitators and barriers to scholarly writing by the graduate student. Barriers include lack of preparation for advanced graduate writing, or lack of adequate and sustainable support systems such as faculty [2,3]. Other perceived barriers include sense of inadequacy, lack of time and anxiety related to writing specifically [11]. A consistent, sustainable mentoring relationship between the faculty member and the student helped promote self-efficacy and writing skills [1,7,11-13], however, mentoring can be a barrier for the busy faculty member due to the required time commitment. Another important facilitator to writing skill competency is the effectiveness of high-quality feedback, from either the faculty member or peer [5,11,13].

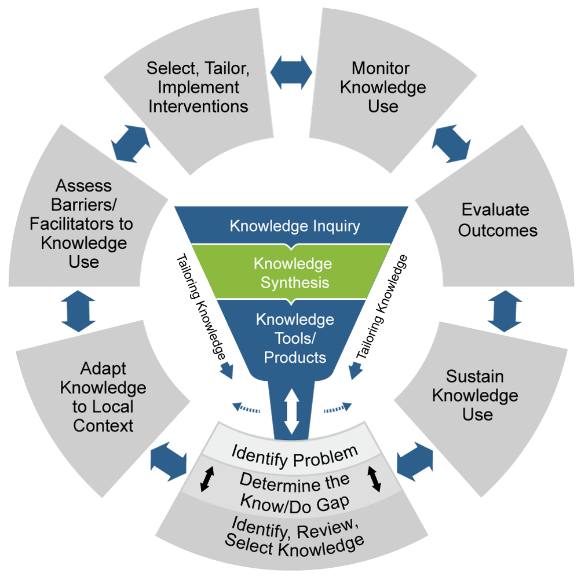
Although there is a consensus related to the challenges of graduate nursing student scholarly writing, there is limited information related to strategies to improve professional writing skills. Several strategies have been employed, including use of writing centers or editors, participating in writing workshops, retreats or courses, specific course assignments related to manuscript preparation, mentoring and peer evaluation [2-4.12,14-16]. It has been suggested that co-authorship with a faculty member may be a positive strategy [2]. Other strategies include a curriculum-wide plan of stepwise writing assignments, increased use of rubrics for evaluation of writing, designated number of references or pages and peer review [17]. Automated writing evaluation tools have been useful for structural evaluation, but less helpful related to concepts and content [18].

However, there is a lack of consistency related to evaluation of these strategies, with a primary focus on qualitative results such as participant satisfaction or perceived effectiveness. Self-efficacy has been one quantitative measure used to evaluate writing skills attainment with the assumption that self-efficacy leads to improved performance based on attainment of confidence in one’s ability as a writer [7]. There is limited information related to quantitative evaluation of strategies related to development of writing skills [6,14-16,19]. Quantitative evaluations have included such outcomes as number of manuscripts submitted and/or published, improvement on scores such as the Trait 6+1 scale or the use of checklist-type evaluation tools [6,16,17,20,21]. Although strategies such as writing-intensive courses, and workshops have been utilized, there is limited quantitative data demonstrating the effectiveness of such strategies. Evaluation data has focused primarily on student self-efficacy and satisfaction, rather than quantitative measures of evaluation using standardized rubrics. Hill (2012), identified the need for nurses to have strong writing skills in order to voice the value of nursing, develop business plans for change and additional resources, and the implementation of evidence-based practices and processes to improve outcomes [22].

The purpose of this evidence-based project is to evaluate the effectiveness of a mandated, one-credit intensive writing course for Doctor of Nursing Practice students at a Midwestern University offered during the first semester of program enrollment.

**Methodology**

Due to the nature of this project, approval was not required through the University’s Institutional Review Board (IRB). The guiding framework for the Evidence-Based (EB) project was Knowledge-to-Action (KTA) Process Framework (Figure 1). The KTA model consists of six phases that focus on knowledge creation and knowledge integration [23]. The phases of the KTA model include problem identification and review of the literature; adaptation of knowledge to use in context; identification of barriers; establishment of interventions; observation of knowledge intervention; evaluation of outcomes; and sustained use of knowledge [23].



**Figure 1:** Knowledge-to Action Process Framework.

**Defining the Problem**

The quality of graduate student scholarly writing, especially students entering the Doctor of Nursing Practice (DNP) program at the baccalaureate level, was discussed during several graduate faculty meetings in 2017-2018. Key issues identified by faculty was lack of scholarly language, lack of knowledge and usage of professional, peer-reviewed cited references, disorganization, or lack of clarity thoughts, spelling and grammar errors, and inconsistent use of American Psychological Association (APA) formatting. Feedback from graduate faculty informed the development of a scholarly writing course that was offered in the last seven-weeks of the semester of the DNP program from October to December 2019.

**Intervention**

The intervention consisted of the development and delivery of a seven-week online professional presence and scholarly writing course that addressed the topics of professional presence, communication, and writing. Student comprehension of learning was evaluated through a professional paper, poster presentation and oral presentation. Further validation of the student’s understanding of scholarly writing was assessed through peer review of student papers, posters, and oral presentation.

Of the 16 students that successfully finished the course, 9 students (47.4%) completed the post-course evaluation. Student response (n=9) to the question, “Irrespective of my grade, my knowledge of the subject matter was increased significantly throughout the course” was given a standard score of 4.44 out or 5 (SD= 0.73).

**Selecting Measures**

To assess the impact of the course on the DNP student’s knowledge of professional presence, communication and writing, one scholarly paper from the DNP health policy course was reviewed from the cohort of sixteen students that completed the scholarly writing course, and the seventeen students that did not complete the course. The assessment of each student’s work was conducted using a scholarly writing evaluation rubric (Figure 2). The tool was developed from several other writing tools reviewed in the literature [5,18,20]. Content validity was established by three expert/experienced graduate nursing faculty. Each student paper was evaluated on overall organization, introduction, body/content, conclusions, references, and APA format. The scale for the rubric was yes, no, or not applicable, with yes being awarded for meeting the criteria for each category on the tool by greater than fifty percent.

**Data Analysis**

Thirty-three student papers were graded by a school of nursing faculty member unassociated with the writing course. To eliminate bias, the student papers were blinded; assigned random numbers and de-identified through the removal of student names and submission dates.

All thirty-three papers were read twice before final grading. For the initial reading, the faculty member took notes and focused on understanding the paper’s topic and content. For the second reading, the faculty member focused on the grading rubric’s criteria and graded accordingly. In the areas of criteria, a checkmark was placed in the appropriate column of yes, no, or non-applicable. After grading was complete, the rubrics were returned to faculty for final data analysis.

No significant differences were seen in the average scores between the students who had completed the writing course and those who had not. Further analysis revealed no significant differences in averages for the Bachelor of Science in Nursing (BSN) -to-Doctor of Nursing Practice (DNP) students or Masters of Science in Nursing (MSN)-to-Doctor of Nursing Practice (DNP) students who completed the writing course versus the BSN-to-DNP students or MSN-to-DNP students who had not completed the writing course (Table 1) However, the course was positively evaluated by students on the post-course evaluation. Student comments reflected growth in writing skills through scholarly papers, a poster presentation, and a professional presentation to peers.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | No writing course | | Writing Course | |
|  | BSN-to-DNP | MSN-to-DNP | BSN-to-DNP | MSN-to-DNP |
| Sample Size | 3 | 14 | 8 | 8 |
| Average Score | 21 | 19.57 | 19.62 | 18.5 |
| Total Averages | 19.82 | | 19.6 | |

**Table 1:** Averages of total correct scores.

In addition to evaluating average scores based on completion or not completion of the writing course and the educational preparation of the student, the evaluation criteria were assessed through an item analysis (Table 2).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | No writing course | | | Writing course | | |
| Total Average % | BSN-to-DNP | MS-to-DNP | Total Average | BSN-to-DNP | MS-to DNP |
| (n=17) | (n=3) | (n=14) | (n=16) | N=8 | (n=8) |
| Organization | | | | | | |
| Title < 15 words & informative | 14(82%) | 3 | 11 | 15(93.7%) | 8 | 7 |
| At least 3 headings in paper | 13 (76%) | 2 | 11 | 13 (81%) | 7 | 6 |
| At least 2 paragraphs per heading | 9 (52.9%) | 1 | 8 | 6 (37.5%) | 2 | 4 |
| At least 2 sentences per paragraph | 14 (82%) | 3 | 14 | 15(93.7%) | 8 | 7 |
| Introduction | | | | | | |
| Builds case for importance/need of paper | 14 (82%) | 2 | 12 | 13 (81%) | 8 | 5 |
| Sentence identifying main problem or question is clear | 11 (64.7%) | 2 | 9 | 11 (68.7% | 7 | 4 |
| Body/Content | | | | | | |
| Each section introduced, concise & summarized | 14 (82%) | 3 | 11 | 9(56%) | 5 | 4 |
| Evidence cited support problem or question with cited references | 14 (82%) | 3 | 11 | 11 (68.7% | 5 | 6 |
| Coherence of ideas | 15 (88%) | 3 | 12 | 10(62.5%) | 5 | 5 |
| Logical bridges from l sentence or paragraph to the next | 16 (94%) | 3 | 13 | 11 (68.7% | 5 | 6 |
| No use of jargon | 17 (100%) | 3 | 14 | 16 (100%) | 8 | 8 |
| Few direct quotes all have quotation marks & page numbers | 16 (94%) | 3 | 13 | 16 (100%) | 8 | 8 |
| Subjects/verbs agree in each sentence | 13 (76%) | 3 | 10 | 14(87.5% | 8 | 6 |
| No run-on sentences or dangling participles | 11 (64.7%) | 3 | 8 | 11 (68.7% | 5 | 6 |
| Passive voice used | 13 (76%) | 3 | 10 | 10(62.5%) | 6 | 4 |
| Readability appropriate for audience | 17 (100%) | 3 | 14 | 16 (100%) | 8 | 8 |
| No spelling. Grammar or punctuation errors | 13 (76%) | 3 | 10 | 11 (68.7% | 5 | 6 |
| Conclusions | | | | | | |
| Summarizes major points | 13 (76%) | 2 | 11 | 10(62.5%) | 5 | 5 |
| References | | | | | | |
| Cited literature current within 5 yrs (unless classic) | 14 (82%) | 3 | 11 | 14(87.5% | 7 | 7 |
| Appropriate APA formatting used | 13 (76%) | 3 | 10 | 15(93.7%) | 8 | 7 |
| No secondary sources used | 16 (94%) | 3 | 13 | 15(93.7%) | 7 | 8 |
| Intext citations provided for use of referenced sources | 17 (100%) | 3 | 14 | 16 (100%) | 8 | 8 |
| Peer reviewed professional journals | 14 (82%) | 2 | 12 | 13 (81%) | 6 | 7 |
| APA format | | | | | | |
| Appropriate APA format used for title page, body of paper, appendices and tables | 14 (82%) | 2 | 12 | 14(87.5% | 8 | 6 |

**Table 2:** Scores per Question (correct responses).

**Discussion**

**Strengths**

Strengths from this study are based on evaluation scores and feedback from students. Students felt the peer feedback and course was helpful. As a result, the course will continue to be offered to first year DNP students.

**Limitations**

There were limitations to this study. A small, homogenous sample size, and faculty-developed evaluation grading rubric, limited generalizability. Self-efficacy was not evaluated in this project and comparing the quantitative evaluation rubric to students’ self-efficacy may have strengthened the findings. Although many studies have evaluated students’ self-efficacy with writing strategies, few have examined the previous educational preparation of the students.

The timing and length of the course offering in the DNP curriculum may have contributed to the study results. The course was offered the second half of the semester for new DNP students. Based on feedback from other DNP faculty regarding the quality of student writing skills, the course was moved to the first half of the semester. The one credit hour course was offered over a seven-week period which required students to complete tutorials, readings, and assignments each week. The fast pace of the course, lack of knowledge of American Psychological Association standards, and skill in scholarly writing for students may have impacted the item analysis on the evaluation rubric.

**Conclusion**

Writing skills for graduate nursing students continues to be a challenge for both students and faculty-evaluators. Coherence, development of ideas, grammar and formatting continue to task students when preparing professional papers, as evidenced by the item analysis in this project. Although several strategies have been employed to increase student writing skills, there continues to be a gap in knowledge and skills. Stand-alone writing courses versus integrated writing assignments throughout the curriculum have been evaluated based on students’ self-efficacy with the skills, but not consistently evaluated using a quantitative grading rubric. With increased faculty workload that may be occurring at some institutions of higher education, the question must be asked whether the cost and time commitment of a stand-alone course is worth the outcomes achieved.

**Recommendations**

Additional study is needed to compare the effectiveness of a stand-alone intensive writing course immersion with integrated writing assignments built within the overall curriculum. Comparison of quantitative writing skill improvement with students’ self-efficacy is also warranted. Finally, there is an assumption that as students’ self-efficacy improves, their overall writing skills and knowledge acquisition will also improve, yet this is yet to be determined. Additional studies are needed to determine the best strategies to improve not only graduate nursing students writing self-efficacy, but their knowledge acquisition and skill set.

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