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A Program to Enhance Writing Skills for Advance Practice Nurses

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Abstract

Advance practice nurses (APNs) make important contributions to scholarly journals that are derived from scientific evidence and clinical practice. This article presents a writing program designed to enhance APNs' writing skills with a series of online modules, a workshop, and manuscript checklist. The program was implemented in a Doctor of Nursing Practice program and evaluated with a writing self-efficacy scale and open-ended questions. Findings indicate that self-efficacy was high after the writing program, and the checklist was useful. This program has great potential as course in a nursing school's curriculum or as a continuing education class. Participants can use the program's tools to maintain their writing skills and enhance publication success throughout their careers.

A Program to Enhance Writing Skills for Advance Practice Registered Nurses

In addition to being expert clinicians, advanced practice registered nurses (APRNs) frequently assume nursing faculty and leadership positions (American Association of Colleges of Nursing, 2006). In these roles they must contribute to nursing science by disseminating clinical projects through publications (Melnyk, 2013). The contributions made to science by nurse clinicians are significant and unique because they are developed from both scientific evidence and clinical practice (Roush, 2017). Publishing their findings in scholarly journals benefits the scientific community and supports career advancement for these nurses.

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Unfortunately, expert nurse clinicians publish less, compared to research nurses and nursing professors (Oman, Mancuso, Ceballos, Makic, & Fink, 2016). Thus, they often feel unqualified to contribute to scientific literature (Bowling, 2013). Reasons frequently given for low publication rates include poor writing skills and low writing self-efficacy (Derouin, Hueckel, Turner, Hawks, Leonardelli, & Oermann, 2015; Tyndall & Caswell, 2017). Self-efficacy is one's belief in his/her capability to complete a desired activity (Bandura, 1986). Increasing self-efficacy has been shown to improve writing skills (Miller, Russell, Cheng, & Skarbek, 2015), thus it is important to invest in and support scientific writing among nurses.

Several strategies have been found to increase writing skills and self-efficacy among nurses. A structured writing course or workshop is one of the most effective formats to increase publication rates among nurses (Derouin et al., 2015; McGrail, Rickard, & Jones, 2006). For example, 8 nurses participating in a one-week intensive writing class and a monthly writing group increased publication rates by 73% over two years (Rickard, McGrail, Jones, O'Meara, Robinson, Burley, & Ray-Barruel, 2009). Courses that have proven most effective are those taught by writing experts. For example, a series of four writing workshops, led by experienced editors, increased publication knowledge, confidence, and motivation among nursing university staff and affiliates (Wilson, Sharrad, Rasmussen, & Kernick, 2013). These workshops were led by an experienced publisher or editor. However, it is often difficult for clinicians to attend a series of workshops on specific dates due to their variable and busy work schedules. Online writing programs, which offer scheduling flexibility and instruction similar to in-person workshops, are a potential solution. In a study of 52 nursing students who had successfully completed an online 16-week writing course, Miller et al. (2015) found significant improvement in writing self-efficacy and writing competency among the students who had successfully completed the course.

Unfortunately, writing courses alone are associated with challenges, such as information retention. While information retention varies among learners, on average individuals forget about 55% of what they learn within eight years of course completion (Thalheimer, 2010). A promising tool to increase information retention and recall may be a checklist that summarizes writing course content. In health care, checklists are common and effective in assuring the quality and safety of processes and products (Gawande, 2009). For example, a strong correlation has been demonstrated between post-operative complications and the World Health Organization's (WHO) Surgical Safety Checklist (Bergs et al., 2014). In addition to improving health care delivery, checklists are emerging as an effective means to improve scientific writing. Experts promote that writing tools, such as checklists, can improve the transparency of research methodology in manuscripts (Maruši, 2015). For example, in one randomized controlled trial a checklist improved the completeness of manuscripts among graduate medical school and public health students (Barnes, Boutron, Giraudeau, Porcher, Altman, & Ravaud, 2015). An additional benefit of a writing checklist is that it facilitates self-evaluation, which has been shown to increase writing self-efficacy among nursing students (Schunk, 2003).

This article presents a writing program designed to enhance scientific writing skills among practicing APRNs currently enrolled in a graduate program. The writing program was designed by nurse faculty and includes online modules and a half-day workshop taught by

an expert nurse author/editor. Additionally, a writing checklist that was created to build and enrich scientific writing skills among APRNs was implemented and evaluated during the writing program.

Methods

Setting and subjects

Participants included APRNs who were enrolled in a doctor of nursing practice (DNP) program at a large university in the southeastern United States. This program was created, implemented, and evaluated by DNP faculty, with the intention of improving APRN writing skills through the curriculum. According to policy at our institution the project was viewed as internal review board exempt since it was not considered human subjects research. All students were required to complete the program, however providing feedback on the program was optional.

The program

The writing program consists of four online modules and a four-hour on-campus writing workshop delivered over one semester. The online modules were facilitated by a DNP faculty member. The program began with access to all of the online modules. Students were asked to review each module that followed with a writing assignment or optional quizzes graded as pass/fail. Module content was selected through consultation with authors who are peer reviewers and/or editors of scholarly journals. Module topics included:

- Scholarly writing and style
- Mechanics of scholarly writing
- Grammar, vocabulary, and formatting
- Organizing a scholarly paper

At approximately week 7 into the course, students attended the writing workshop. The workshop was led by an expert author and editor, who was a member of the DNP faculty. The workshop began with a lecture followed by writing exercises in which student were asked to apply what they had learned from the online modules. Next, DNP faculty members trained students on use of the checklist. Students were asked to use the checklist to evaluate two paragraphs of a peer's writing. This evaluation was followed by a peer discussion in which students discussed areas they each could focus on to improve writing. Faculty members were available to answer student questions.

The checklist.—The checklist (detailed in Figure 1) was created by the first and third authors of this article. It draws from the online modules and workshop content to help writers identify weaknesses and discern when a manuscript has been edited sufficiently and is ready for submission. The checklist is divided into five sections: (1) overall content of the writing; (2) paragraph structure; (3) sentence structure; (4) words; and (5) throughout the paragraphs, which refers to consistency between paragraphs. The checklist is designed in a concise manner that instructs the writer to review each item, then check yes or no if that item was sufficiently addressed. If an item needs improvement, indicated by a check in a gray

box, then the writer can revert to the module content that addresses those specific writing skills and edit the manuscript. The checklist can be used independently, or it can be used for peer review. If used for peer review, the checklist contains instructions about how to edit a document. These peer review edits can provide an author with guidance on how to improve their writing.

Measures

Self-efficacy.—Writing self-efficacy was measured as a proximal outcome to writing skills that may have been acquired through the program. It was selected as the outcome of interest because it facilitates writing skills (Miller, Russell, Cheng, & Skarbek, 2015). Self-efficacy was measured by a modified version of the Post-Secondary Writerly Self-Efficacy Scale (see Table 1) that has excellent reliability (Cronbach's Alpha 0.931 and split-half reliability 0.864) (Schmidt & Alexander, 2012), and has been previously used with nursing students (Miller et al., 2015). The measure includes 13 items about writing self-efficacy that are scored with a level of agreement of 0% to 100%, higher scores indicate more agreement.

Checklist evaluation.—Students were also asked three open-ended questions about the checklist. Specifically, they were asked what was most and least useful about the writing checklist, and any additional thoughts or comments about the checklist. Finally, information was collected about the date they received their previous degree and if they had ever published an article in a peer-reviewed journal.

Analysis

A total score, means, and standard deviations were calculated for each item on the Post-Secondary Writerly Self-Efficacy Scale using Excel version 15.33. Responses to the open-ended questions were coded individually by the first and second authors to identify common themes. Coding discrepancies were discussed and resolved.

Results

Sample

This program was implemented with APRNs who were enrolled in a DNP program. Individual demographics were not obtained. However, demographic data for the DNP cohort are presented in Table 2. The self-efficacy scale and checklist evaluation were optional to complete, and 70% of the cohort (76 of the 109 students) completed the forms. These 76 students graduated from their last nursing program an average of five years ago (BSN or MSN). Of the 76 students who completed the program and evaluation, 9 (24%) had previously published in a scholarly journal.

Writing self-efficacy

Writing self-efficacy scores for each item of the scale are detailed in Table 1. The overall self-efficacy average score was 79% (SD 8) which corresponds to "agree" on the measure.

Checklist components

Three main themes emerged about the most useful parts of the checklist. First, students reported the most useful thing about the checklist was its user-friendly format (n=29). For example, one individual commented that “it is clean and precise in stating the expectations for good scientific writing.” Second, students reported that the checklist identified areas of writing that needed improvement (n=9). For example, one student wrote that it “helped find my weakness,” and another stated it “clearly identified the components that need to be corrected.” Finally, the third theme is that the checklist guides the process of self-editing (n=9). One student said that it “breaks down the details of what to look for,” and another wrote that it is an “organized way to edit and review.”

When asked what was least useful about the checklist, most of the students, who provided a response, stated nothing or that everything was great (n=10). However, 2 of the 76 students who completed the evaluation identified a specific section as least useful (the sentence and throughout the paragraph sections). Four students thought the checklist was too long, and two students felt they needed more time to learn how to use it.

Finally, students provided additional feedback. Eight students had positive remarks about the checklist and indicated they plan to use the checklist in the future. One student stated “it’s very helpful for understanding how to improve my writing.” Four students made suggestions to improve the checklist, and three students recommended more training and time with the checklist. Only two students expressed uncertainty about the usefulness of the checklist.

Discussion

In general, the writing self-efficacy scores indicate that overall students have a positive belief about their ability to write scholarly papers. This multi-component writing program contains scientific writing skills that APRNs need to improve nursing care and science. The checklist expands upon existing writing education strategies for nurses. It can be applied to a draft document at any time throughout a nurse’s scholarly career. Due to clinical obligations, nurses may have lengthy amounts of time between scholarly writing. The checklist tool is something they can pick up at any time to refresh their memories of how to construct their scholarly papers.

Several limitations should be considered with this program. First, this information was tested among nurses currently enrolled in a DNP program who are likely writing more than the general APRN population. Second, pre-program writing self-efficacy was not assessed. Thus, a recall bias may have existed as nurses reflected on their pre-program writing self-efficacy to complete post-program measures. Finally, self-efficacy scores were not obtained for 33 students who declined to participate in the evaluation process. The scores and opinions of these students may have altered the final results.

In conclusion, a writing program that includes a series of online lessons, a half-day workshop, and a writing checklist can provide nurses with the information and tools to participate in scholarly writing. This program can be implemented in schools and clinical sites as an instructional or refresher course for writing. Moreover, graduates of the course

can refer to the checklist to evaluate their writing skills throughout their careers. Clinicians can use the checklist with colleagues to help guide and mentor the writing process. Additionally, the program could be implemented as a continuing education program to support staff development.

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Directions: Apply the questions below to your writing sample. Answer each question by checking the “yes” or “no” box. Look at the items for any checked grey boxes. These items, with checked grey boxes, are areas to focus on to improve your writing.		
	Yes	No
Content		
Can you identify a sentence stating the main problem or question to be addressed? (If yes, underline it.)		
Can you identify words the writer used to “take a stance” or persuade the reader there is an important question this manuscript will address? (If yes, circle them.)		
Are you persuaded though these opening paragraphs that this manuscript will contribute something significant or new?		
Does the evidence cited support the problem or question presented?		
Is the cited literature current?		
Paragraphs		
Does each paragraph have one clear main point?		
Are there logical bridges from one sentence to the next? (If no, draw a circle between sentences lacking logical bridges.)		
Are sequencing terms used appropriately? (If no, circle incorrectly used terms.)		
Are the foci of the first and last sentences of the paragraph consistent?		
Sentences		
Is the main character the subject of each sentence?		
Do subjects and verbs agree in each sentence? (If no, circle subject/verbs that do not agree and draw a line to connect them.)		
Are there any long sentences that can be divided into two sentences? (If yes, draw a line to divide them.)		
Are there any dangling participles? (If yes, underline them.)		
Are there any unnecessary commas? (If yes, cross them out.)		
Words		
Are there words that do not add meaning to a sentence? (If yes, cross them out.)		
Are there words that can be replaced with more simple words? (If yes, circle them.)		
Throughout the paragraphs		
Is active voice used?		
Is first person used sparingly?		
Can any content be omitted from these opening paragraphs?		
Do sentences containing citations flow with the writing style and voice of the author? (If no, there may be reason to suspect plagiarism (intentional or unintentional). Be sure to discuss why you are concerned with the author.)		

Figure 1.
The Writing Checklist

Table 1.

Writing Self-Efficacy Scores

Question	Mean *	SD
1. I can articulate my strengths and challenges as a writer.	77	19
2. I can find and incorporate appropriate evidence to support important points in my paper/s.	74	20
3. I can be recognized by others as a strong writer.	70	18
4. When I read a rough draft, I can identify gaps when they are present in the paper.	79	18
5. I can maintain a sense of who my audience is as I am writing a paper.	69	19
6. When I read drafts written by classmates, I can provide them with valuable feedback.	87	13
7. Once I have completed a draft, I can eliminate both small and large sections that are no longer necessary.	76	19
8. I can write a paper without experiencing overwhelming feelings of fear or distress.	64	20
9. The writing checklist helped me edit my colleague's writing.	87	13
10. The writing checklist helped me understand how to improve my writing.	87	12
11. The writing checklist was easy to use.	89	11
12. The amount of time it took me to complete the writing checklist is acceptable to me.	86	15
13. I will use the writing checklist in the future.	87	12
Overall score	79	8

* Scores can range from 0 (strongly disagree) to 100 (strongly agree) that the writing checklist resulted in the given outcome

Table 2.

Student Demographics

Cohort Demographics	N = 109	%
Gender		
Male	14	12.8
Female	94	86.2
Other/not reported	1	1
Average age (range)	33 (23–60)	
Race/Ethnicity		
Non-resident	5	4.59
American Indian or Alaska Native	1	0.92
Asian	9	8.26
Black or African American	12	11.01
Hispanic or Lantino/a	1	0.92
White	75	68.81
Two or more races	3	2.75
Not indicated or Unknown	3	2.75
Average years of RN experience (range)	8.5 (0–38)	
Program Information		
Post-BSN DNP	29	27
Post-MSN DNP	55	50
DNP = Nurse Anesthesia	25	23