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Peer to Peer Review: Professional Development to Improve Feedback Skills and Self-Efficacy

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Peer to Peer Review: Professional Development to Improve Feedback Skills and Self-Efficacy

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In partial fulfillment of the

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Doctor of Nursing Practice

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Abstract

Background: Peer to peer review is the most essential form of peer review as it encourages nurses to evaluate the quality, safety, and effectiveness of nursing care amongst peers. Poor communication skills for providing feedback during peer review is a barrier identified in the literature, which can be addressed in professional development training.

Objectives: The purpose of this study was to evaluate the effect of communication-focused professional development sessions on the ambulatory care nurses' perceived self-efficacy to successfully provide meaningful feedback during peer to peer review.

Methods: The sample was registered nurses working at a medical group. Twenty four participants completed a demographic data survey and a modified General Self Efficacy Scale (GSES) before and after the professional development session. Descriptive statistics were calculated for demographic and study variables. Paired t-tests were performed to compare the GSES pre and post intervention mean scores.

Results: The results showed a statistical significance difference between the mean pre and post-GSES scores for all participants. When the group was split by previous peer review experience, both groups demonstrated statistically significant difference between the mean pre and post-GSES scores.

Conclusion: Communication-focused professional development session for registered nurses increased their perceived self-efficacy to provide feedback to their peers. Based on Bandura's theory of self-efficacy, we expect that participants' increased perceived self-efficacy to provide feedback achieved through the sessions will influence their ability to engage in successful delivery and acceptance of feedback during peer to peer review.

Peer to Peer Review: Professional Development to Improve Feedback Skills and Self-Efficacy

As a recognized profession, nursing has an obligation to the public and the healthcare community to engage in a structured and meaningful peer review process. Peer review cultivates curiosity and encourage continued learning founded on evidence-based practices (ANA, 2011/1988). The American Nurses Association (ANA) (2011/1988, p. 158) describes peer review as, “The process by which practicing registered nurses systematically access, monitor, and make judgments about the quality of nursing care provided by peers as measure against professional standards of practice.” Guidelines for peer review include; registered nurses (RNs) must conduct clinically based peer review at the same level, feedback should be delivered in a timely manner, reviewers should not give feedback anonymously, and the peer reviewer should consider the experience level of its participants (ANA, 2011/1988).

Peer review can take many forms in nursing; peer to peer review, performance review, adverse event case review, grand rounds, and morbidity and mortality rounds (Branowicki, Driscoll, Hickey, Renaud & Spring, 2011). It can be argued that peer to peer review is the most essential form of peer review, as it encourages nurses to evaluate the quality, safety, and effectiveness of nursing care amongst peers. Most importantly, peer to peer review promotes self-regulation among nurses, and provides an opportunity for professional accountability leading to increased autonomy and role actualization (Haag-Heitman & George, 2011).

Problem Statement

The organization in which this study was conducted, is implementing a peer to peer review program for the ambulatory care RNs employed at over 200 primary care and specialty clinics. For peer review to be meaningful, this organization must address barriers to successful program implementation. Lack of adequate communication skills for providing meaningful

feedback is a commonly identified barrier in the literature. Studies have shown that the lack of perceived ability to give constructive feedback, as well as the fear of retaliation for honest feedback, is a barrier to successful peer to peer review implementation (LeClair-Smith et al., 2016). The perceived ability to successfully accomplish a task is known as self-efficacy (Bandura, 1977). The higher the level of self-efficacy one holds to be true, the more likely the individual is to engage and be successful in that task (Singh et al., 2013). In peer to peer review, nurses with low levels of self-efficacy related to their communication skills are more likely to either not participate in peer to peer feedback, or provide inadequate feedback. To ensure successful program implementation, communication skills and the participants' perceived self-efficacy or ability to provide peers feedback will be addressed.

Haag-Heitman & George (2011) identifies the ability to effectively give and graciously receive feedback as a critical component to success. The authors recommend preparing nurses to graciously give and receive feedback through education and professional development as a best practice for meaningful peer review (Haag-Heitman & George, 2011). However, the lack of research conducted to test and evaluate methods to improve communication skills to provide feedback is a significant gap. This needs to be further explored to ensure success of peer to peer review implementation.

Purpose

The purpose of this study was to evaluate the effect that a communication-focused professional development session has on perceived self-efficacy among ambulatory care RNs to successfully provide meaningful feedback during peer to peer review. More specifically, the study sought to address the following aims:

Specific Aims.

1. To evaluate RNs' perceived self-efficacy for giving constructive feedback prior to the communication-focused professional development session.
2. To evaluate RN's perceived self-efficacy for giving constructive feedback post communication-focused professional development session.
3. To compare RN's pre communication-focused professional development session perceived self-efficacy score to their post session score.
4. To assess the differences in perceived self-efficacy in the two assessment periods between RNs with and without peer to peer review experience.

Hypothesis

Professional development sessions to improve feedback skills for ambulatory care RNs will increase their perceived self-efficacy.

Significance

The role of the ambulatory care RN, specifically in primary care, has undergone recent revitalization with the introduction of the patient-centered care model and team-based care. The increased focus on quality and population health management ushered in by the transition from fee for service billing to value-based care, has shed a spotlight on the value of the RN in primary care. This has laid the groundwork for the revitalization of the role of the RN in ambulatory care. The increased focus on quality and safety combined with the increased complexity and acuity of patients seen in ambulatory clinics, have contributed to the need for a more thorough approach to the advancement and professional development of RNs in the ambulatory care setting.

In response, ambulatory care nurses have begun to organize into professional practice councils, and fully realize the role of the professional nurse in ambulatory care. An integral part

of practice development and full actualization of the role of the RN is the adoption and successful implementation of peer review in ambulatory nursing practice. Peer review in the form of peer to peer review, which encompasses all six of the ANA guidelines for peer review, has yet to be fully recognized in most settings (George & Haag-Heitman, 2011). Challenges that present in this setting include, but are not limited to, the lack of an existing model for peer to peer review in ambulatory care, a gap in implementation studies in the literature, and poorly defined nurse sensitive indicators (NSI).

Nurse leaders in ambulatory care are charged with studying, developing, and implementing peer to peer review in this setting. According to authors George and Haag-Heitman (2015, p. 398) “Nurses, as leaders in the current healthcare reform movement, must make significant progress in the design, implementation, and adoption of peer review practices that demonstrate credibility in nurses’ ability to achieve quality and safe patient outcomes.” As ambulatory care nurse leaders begin to define and develop a peer to peer review tool and processes, there are lessons to be learned from peer to peer review implementation studies conducted in the inpatient setting. Two major barriers to implementation of peer to peer review programs in the inpatient setting identified in the literature are communication skills and self-efficacy as applied to the perceived ability to give feedback. These barriers need to be addressed as a part of any implementation strategy (George & Haag-Heitman, 2011; LeClair-Smith et. al, 2016; Whitney et. al, 2016).

Encouraging a nursing workforce to be strong patient advocates who are confident in their own nursing and communication skills will encourage self-regulation of their practice and their peers’ practice, thereby ensuring continued quality and care delivery to the highest safety standard (George & Haag-Heitman, 2015). It is essential that self-efficacy beliefs regarding

communication abilities, specifically the perceived ability to deliver constructive and honest feedback, be addressed via professional development for nurses (Adeniran, Smith-Glasgow, Bhattacharya, & Xu, 2013). This study will address the perceived strength of self-efficacy as it applies to the ambulatory care nurses' ability to give constructive feedback to peers, both before and after professional development session aimed to improve communication skills.

Literature Review

A literature search of literature from 2007-2017 was conducted using CINHALL, PubMed, and Medline. The terms peer review, peer to peer review, nursing, self-efficacy, and communication were used in the search. The search term "peer review" retrieved 135,342 results. When the term nursing was added with the Boolean operator "and" 11,608 results were retrieved. Further searches of peer to peer review with the term nursing added with the Boolean operator "and" resulted in 10,788 articles. This search was further narrowed by adding the terms communication and self-efficacy with the Boolean operator "and." This search resulted in 55 articles and one book. The 55 articles and one book were reviewed, 14 articles and the book was selected for inclusion in this literature review.

Peer review has taken on many forms in nursing practice, and range from formal to informal processes which include mortality and morbidity reviews, peer to peer review, incident-based peer review and performance-based peer review (Branowicki et al., 2011; Whitney et al., 2016). Despite the varied forms of peer review, there is agreement that peer review in nursing is necessary to promote safe, autonomous, and high quality nursing care (Brann, 2015; George & Haag-Heitman, 2015; Hagg-Heitman & George, 2011; LeClair-smith et al., 2016). The ANA recognizes peer to peer review as an essential part of nursing's obligation as a profession to practice nursing and uphold the highest of standards. The ANA Code of Ethics (2015, p.22)

Provision 5.5 states, “In all nursing roles, evaluation of one’s own performance, coupled with peer review, is a means by which nursing practice can be held to the highest standards. Each nurse is responsible for participating in the development of criteria for evaluation and practice and for using those criteria in peer and self-assessment.” Even though there is broad agreement that peer to peer review is necessary, there is a significant gap in documented examples of peer to peer review as it is described by the ANA and its effects on the quality and safety of patient care delivered by nurses.

The ANA provides clear guidelines for nursing peer review in their 1988 publication “*Guidelines for Peer Review*.” According the ANA, peer review must occur between nurses of the same rank, and it must be practice-focused. Feedback is also expected to be delivered in a timely, routine manner, should foster growth and professional development through continuous learning, and consider the level of expertise of the nurse. Finally, it should not be anonymous (ANA, 1988). As the responsibility of executive nurse leaders and managers, incorporating these elements into a robust peer to peer review process is part of a larger effort to support quality and safety in nursing through autonomy, empowerment and self-regulation (George & Haag-Heitman, 2011).

Three studies met four or more of the ANA’s guidelines for peer review and compared peer to peer review performance to quality of care; however, none of these studies reported statistically significant findings to support peer review as a method to improve the safety and quality of patient care (Brann, 2015; Evanovich Zavotsky, Malast, Festus, & Riskie, 2015; LeClair-Smith et. al, 2016). LeClair-Smith et al. (2016) found that a six staged peer review process used with nurses at varying levels, experience, and specialty had a significant effect on two nurse quality indicators which were, fall rates and hospital acquired pressure ulcers (HAPU)

rates on an inpatient unit. The six stages included; literature review, tool development and testing, RN tool education and program implementation, 2nd and 3rd peer feedback sessions, and a staff survey. Being uncomfortable giving and receiving feedback was a barrier to effective peer to peer feedback reported in the follow up survey by participants. The authors recommended that going forward with education and professional development on how to give and receive constructive feedback is necessary for successful implementation of peer to peer review (LeClair-Smith et al., 2016).

In the study conducted by Brann (2015), a new peer review process and tool based on the ANA guidelines and the National Database of Nursing Quality Indicators (NDNQI) were piloted on two nursing units in an inpatient facility. To ensure participant and leadership buy-in, the tool was developed with the input of staff nurses and union leadership. Over the two-year pilot, both units saw increased NDNQI scores. Confounding factors that may have influenced the initial low baseline NDNQI scores noted by the author are a turnover in nursing leadership, a slow program roll out, and fiscally conservative policies that reduced overtime and cut programs (Brann, 2015). The authors concluded that non-punitive feedback mechanisms such as peer review provide nursing staff with a mechanism to create solutions, examine their practice, and foster staff ownership of problems on the unit. Such feedback mechanisms created a culture of questioning, quality, and safety on the unit, which ultimately improved the quality of care, delivered as evidenced by the increase in NDNQI scores.

The affect that peer review had on reducing central line-associated bloodstream infections CLABSI was the focus of Zavotsky's et al. article (2015). The researchers in this study implemented a staff nurse driven peer review process that identified and brought CLABSI related events for group discussion. During the review of the events, the primary nurse and

process improvement analyst collaborated to better understand the event and how it could be avoided in the future. The introduction of peer review on the unit reduced CLABSI rates by 50% over two years, and resulted in a higher level of staff engagement in process improvement strategies to drive quality (Zavotsky et al., 2015).

Fear of peer reprisal, confrontation, and interpersonal conflict are reported fears that need to be addressed and mitigated to ensure a success peer to peer review program. Participants in a study conducted by Padgett (2013) reported fear of reprisal, fear of confrontation, and defensiveness by the receiving party as key factors which prevent them from participating in honest peer review. For peer to peer review to be successful, participants need to feel comfortable and confident in their ability to give and receive constructive feedback. In Padgett's study, he measured the degree to which professional collegiality affected peer monitoring based on ethnicity. The author observed unit workflows for six months, spending approximately 8 hours a week on the unit. He also interviewed 26 nurses. During the interviews, it was determined that many of the interviewees did not participate in providing feedback to their colleagues because of the perception that the feedback would have been received as criticism (Padgett, 2013). The participants felt that criticisms were taken poorly and would result in conflict. The author argues that a lack of unit structure for nursing professional practice contributes to the culture of fear and inability to self-regulate (Padgett, 2013). The author concludes that, without a common professional language for quality and safety, self-regulation through peer to peer feedback and best practice sharing will not be effective. Without first addressing the gap in professional development to improve levels of self-efficacy as it relates to communication skills, implementation of peer to peer review in any setting will fail.

Theoretical Framework

As Pfeiffer, Wickline, Deetz, & Berry (2012) note, communication with patients is not the issue; rather, the issue is communication amongst nursing peers themselves. For staff to feel encouraged to openly communicate feedback to their peers, the manager is responsible for modeling a culture of safety and transparency (Kara-Irwin & Hoffman, 2014). In peer to peer review, if the RN has a low level of self-efficacy related to communication skills, they are more likely to not participate in peer to peer feedback, or provide inadequate feedback.

Bandura's theory of self-efficacy explains the relationship between the perceived belief in ability and the effect of an external intervention on the individual's perceived ability (Bandura, 1977). This theory provides rationale for how perceived self-efficacy can negatively or positively impact a nurse's ability and willingness to participate in peer to peer review based on their perceived ability to provide constructive feedback. Bandura's theory of self-efficacy is derived from Bandura's social cognitive theory. Social cognitive theory consists of four main components: Self-observation, self-evaluation, self-reaction, and self-efficacy (Redmond & Weaver, 2016). Simply, it is the belief that one can accomplish the task with one's skills or knowledge; it is a tangible or task based equivalent to self-esteem and confidence (Redmond & Weaver, 2016).

In his theory, Bandura describes an integrated model in which the individual participates in his or her own locus of motivation, behavior, and beliefs about ability (see Appendix A). According to Bandura (2005, p.1), "People are self-organizing, proactive, self-regulating, and self-reflecting. They are contributors to their life circumstances not just products of them." This theory lays the groundwork for Bandura's triadic reciprocal determinism model, which illustrates how environmental, personal, and behavioral factors influence each other and the individual's development (Redmond & Weaver, 2016). According to this model, these factors influence each

other, as well as how the individual experiences life and perceives his or her environment. The effects of these factors can change in intensity and duration depending on the situation, and not all factors affect the individual equally or at the same time.

There are four key domains in Bandura's theory of self-efficacy. The domains are performance outcomes, vicarious experience, verbal persuasion, and physiological feedback. Performance outcomes affect an individual's self-efficacy by positively or negatively influencing their belief that they will succeed or fail based on previous experiences with the task or similar tasks (Bandura, 1977). The individual's previous performance outcomes will influence their willingness to participate in the task. If the individual has experienced success in the past when they attempted the task or a similar task, they are more inclined to believe they will be successful again. As a result, they are more likely to engage in the task (Bandura, 1977).

The second domain, vicarious experience, affects an individual's self-efficacy by influencing their perception that they will succeed or fail at a task by watching someone they perceive as similar to them fail or succeed at a task. This influences the individual's perceived self-efficacy either positively or negatively (Bandura, 1977). If the individual watches someone similar to them succeed at the task or a similar task, they are more likely to believe they will be successful and engage in the activity. The opposite is also true. If the individuals witness someone similar to themselves fail, they are more likely to believe they too will fail, and are less likely to engage in the task.

The third domain of Bandura's theory of self-efficacy is verbal persuasion. An individual is more likely to attempt a task if external forces verbally confirm their belief that the individual will be successful (Bandura, 1977). Like the previous two domains, verbal persuasion can

positively or negatively affect self-efficacy. Verbal encouragement in this study can come from two loci: Peers and leadership.

Lastly, physiological feedback or emotional feedback affects self-efficacy via emotional arousal or stimulation associated with the task (Bandura, 1977). On the other hand, feelings of nervousness, anxiety, or fear will negatively influence the individual's confidence in their ability to accomplish the task. Feelings of excitement, anticipation, or ease will increase the individual's self-efficacy, and increase the chance that they will attempt and be successful at the task.

According to Bandura, positive or negative experiences in each of these domains can drastically alter an individual's perceived self-efficacy (Bandura, 1997). This theory provides a theoretical foundation for why and how professional development sessions to improve communication skills between peers, will positively affect the participants' perceived self-efficacy as it applies to providing constructive feedback during peer to peer review. By providing participants with the opportunity to either experience or witness their peers successfully giving and receiving constructive feedback in a safe and supportive environment, the participant will internalize those experiences and feel more positively about their capabilities. As a result, the participant will experience improved perceived self-efficacy and will be more likely to engage in honest and open peer to peer review activities.

Variables

This study measured the degree to which the intervention of a communication-focused professional development session affects the participants' perceived ability to provide feedback to their peers. The dependent variable in this study is perceived self-efficacy as it relates to the participant's ability to give feedback. This was measured using an altered General Self Efficacy

Scale (GSES) (Schwarzer & Jerusalem, 1995). Permission to modify the GSES has been granted by its authors (see Appendix B). The independent variable in this study is a professional development course designed to improve communication skills during peer to peer feedback. The intervention occurred within an organizational structure that has a well-established nursing professional practice council, which promotes autonomy and self-regulation of nursing practice.

Methods

Research Design

This study is a quasi-experimental cross-sectional study with a pre and post-intervention survey. A control group was not used in this study, as the intervention was open to all RNs in the organization who participated in pre-established peer review feedback professional development sessions in preparation for the implementation of peer to peer review program. This design was chosen to assess the effect of professional development to improve communication skills as it applies to providing constructive feedback has on the participants' perceived ability to do so. Participants were asked to complete a modified GSES questionnaire prior to participating in the professional development session and were asked to complete the same modified GSES questionnaire immediately post-intervention. Demographic data collected before the professional development session included; race, age, gender, years of nursing practice, and education level.

Sample

The targeted population for this study was full time or part time RNs employed by a large medical group who attend the professional development sessions. A convenience sample of RNs from all levels and ambulatory settings was used in this study. Within this population, there are variations in education levels, experience, and specialty certification.

This pilot study was intended to provide preliminary data and to examine the feasibility of the intervention that is intended to be used in a larger scale study to implement peer to peer review within the organization. Based on previous participating rates in professional development sessions at the organization, it was anticipated that 30-50 eligible RNs would participate in the professional development sessions, and 80-90% of those nurses would participate in this study. Ultimately, 28 RNs participated in the professional development sessions and 25 participants opted to participate in this study.

Inclusion criteria.

RNs with an active license in the state of Virginia or other Compact State with an associate's degree in nursing (ADN), bachelor degree in nursing (BSN), masters in nursing (MSN) or healthcare administration (MHA), and doctorate-prepared RNs (DNP, PhD) were included in this study. RNs from all organizational specialties, including; primary care, urgent care, cardiac services, vascular services, infectious disease, neurology, bariatric weight loss, integrated care management, anti-coagulation, pediatrics, population health, project management, and staff education. Additionally, RNs from all administrative levels, including; staff RNs, RN practice coordinators, RN practice managers, RN clinical managers, and directors participated in this study.

Exclusion criteria.

Due to their significantly different roles and scope of practice, advanced practice nurses, licensed practical nurses, and medical assistants were not eligible to participate in this study.

Setting

The organization where this study was conducted is a large physician led medical group that is associated with a larger healthcare system. The system includes three medical groups,

which encompass 12 inpatient centers totaling over 300 care sites throughout Virginia and North Carolina. The medical group has over 200 clinics in South Eastern Virginia, the Blue Ridge Region, Northern Virginia, and the Eastern Shore of North Carolina. The organization provides a range of ambulatory care services including primary, urgent care, and specialty services. The role of the RN in the medical group varies by location, specialty, and position. The 183 RNs employed by the organization at the time this study was conducted function as team coordinators, clinic managers, project managers, case managers, population health managers, patient educators, staff educators, and clinical and operational leaders.

Recruitment

Participants were asked to take part in this study and encouraged to attend professional development training conducted by senior nursing leadership to improve communication skills. This training is a part of a larger project to implement peer to peer review in the organization. Recruitment took one month. An initial email with the professional development course details and a brief overview of the course was sent to all RNs that met the inclusion criteria. The email also included information regarding the dates, times, and locations of the offered courses. Participants were asked to RSVP to one of the four offered courses. At the beginning of each session, RNs were asked to participate in the study by the student investigator (see Appendix C). Participation was voluntary and confidential.

Intervention

Study participants attended a one-hour professional development session focused on improving one's ability to provide and receive constructive feedback in the workplace. The professional development sessions were sponsored by the organization, and conducted by nurse leaders within the organization. There were four in-person interactive sessions offered, with

each session facilitated by the same nurse leader using the same course curriculum designed by the student investigator (see Appendix D). The course objectives were: Describe what peer to peer review is, describe why feedback during peer to peer review is critical, learn the pillars of feedback, and demonstrate the ability to confidently participate in feedback as a reviewer and a reviewee.

The first component of the course addressed physiological feedback by addressing fears associated with the task of providing feedback. As previously discussed, reported fears in the literature include fear of reprisal, fear of hurting someone's feelings, and fear of feedback being used to punish or harm the recipient's career (Padgett, 2013). These fears, as well as coping mechanisms to address these fears, were addressed through open discussion amongst facilitators and participants.

The second component addressed vicarious experience through observation and roll-playing activities. Nurses in the course participated in two case studies that demonstrated both poorly and well executed peer to peer evaluation and feedback. Roll-playing activities were followed by individual and small group reflection.

The third component of the course was based on verbal persuasion. Participants were asked to briefly reflect on the activity, including their performance and their teammates' performances. They were asked to identify the following for themselves and each of their teammates: One thing they did well, one area for improvement, and a solution or idea to improve.

At the end of the course, the instructor facilitated performance feedback wrap-up. The facilitator asked participants to reflect on previous experiences providing feedback and identify, and how they will use the skills gained during the session to improve their own feedback skills.

After the conclusion of the discussion period, participants were asked to complete the post-GSES survey.

Instruments and Measurement

The modified General Self-Efficacy Scale (GSES) (See Appendix E) measured the strength of self-efficacy pre and post intervention. Dr. Ralf Scharwarzer and Matthias Jerusalem created the GSES in 1995. The scale is a 10-item self-administered assessment that takes approximately 2-3 minutes to complete according the authors' instructions for use (Scharwarzer & Matthias, 1995). The GSES tool measures self-efficacy strength by asking the participant to respond a series of statements using a Likert scale rating system. The tool is intended to be used as a summated rating scale. However, the participants' final score can be calculated two ways: A final sum of all 10 responses or a mean of the responses. The authors note in their instructions that the tool is valid and reliable (Scharwarzer & Matthias, 2014). In samples from over 20 countries, Cronbach's alpha ranged from 0.76-0.90 (Schwarzer & Jerusalem, 1995). Independent studies have also shown that the GSES has high reliability and validity (Leganger, Kraft, & Roysamb, 2000). In their article, the authors note that the GSES had a Goodness of Fit Index (GFI) score of 0.93 and 0.94 and an Adjusted GFI (AGFI) score of 0.89 and 0.91 respectively for the two studies analyzed (Leganger et al., 2000).

The GSES used in this study consists of 10 questions in which the participant rates their perceived ability as it relates to the statement on a 4-point Likert-type scale (1 = *not at all*, 2 = *barely*, 3 = *moderately*, 4 = *exactly*). The questions were altered to better reflect the research questions in this study. Using and altering the scale to better reflect this study's needs was done with permission. An altered version of GSES has been used previously in nursing research and demonstrated good reliability (Thompson, 2016).

Data Collection Procedure

Data was collected using three paper and pencil self-administered questionnaires: A demographic questionnaire and a pre-intervention modified GSES questionnaire, and a post-intervention modified GSES questionnaire. The nurses also completed a demographic questionnaire including gender, race, level of education, number of years of experience, and previous experience with peer review (see Appendix F). Participant names or personally identifiable information were not collected; each participant was assigned an identification number at random. All questionnaires completed by the participant were labeled with their respective number. Each participant received a folder containing the three questionnaires pre-labeled with a participant ID number upon arrival. Color-coding was used to prevent confusion of questionnaires by participants, and to aid in identification of questionnaire type during both collection of forms and data entry.

Data Analysis Plan

Data were double entered in Microsoft Excel and then were validated for accuracy by the student investigator. The data were analyzed using IBM SPSS Statistics, Version 22 (IBM, 2016). Demographic data were described with means, standard deviations (SD), percentages, and ranges as appropriate. Descriptive statistics were calculated for the pre and post-intervention GSES scores. Paired t-tests were chosen as the preferred analytical method to test the hypothesis, because the same sample was used to complete both the pre and post intervention GSES questionnaires. Paired t-tests were performed for each individual question, as well as for the mean score of each participant of the pre and post intervention GSES. Missing data was accounted for by using listwise deletion.

Ethical Considerations

This study was submitted for approval to the local institutional review boards (IRB) for approval. The study was granted exempt approval and deemed that consenting participants was not necessary for this study. Neither participant identifiable information nor health information were collected as a part of this study. Participation in this study was voluntary and all questionnaire results were anonymous. Data from the three questionnaires were entered and stored on a password protected secure laptop issued to the student investigator by the organization at which the study was conducted. Only the student investigator had access to this laptop. The organization-issued laptop security features were set up and maintained by the organization's information technology department in accordance with organizational and HIPAA standards for protecting personally identifiable information. Hard copies of the questionnaires were stored in a secure location in a locked filing cabinet, within the organization corporate headquarters. Only the student investigator had access to the locked filing cabinet. Corporate headquarters is a secured building that requires badge access to the building and the workspaces. Participants did not risk reprisal, loss of employment, or encounter financial risk for participation or non-participation in this study.

Time Line

In the first four weeks, the student researcher scheduled the professional development sessions and a correspondence regarding sessions was disseminated to eligible participants. During weeks five, six, and seven, the student researcher recruited RNs to participate in the professional development sessions via direct email notifications to the participants and to their nursing supervisors. In week eight, the student researcher entered the data in a Microsoft Excel

worksheet and imported it to the IBM SPSS statistics software. In weeks 10-20, the student investigator analyzed the data.

Results

Twenty-eight RNs attended one of the four peer review feedback professional development sessions, 25 of the 28 nurses completed the study surveys. One incomplete survey packet was excluded due to the participant's failure to complete at least 80% of the GSES instrument per the instrument's authors' recommendations. All 24 participants were female. The average age was 41.79 years ($SD = 10.66$); the youngest participant was 27 years old and the oldest was 61 years. The majority of the participants (75%) reported being Caucasian; 17% were African American, and 8% were Hispanic or Latino. More than half of the participants (54.2%) had a Bachelor of Science in (BSN), followed by ADN, diploma, and MSN at 29.2%, 8.3%, and 8.3%; respectively. Half of the participants reported previous experience with peer to peer review (see Table 1).

The mean pre-GSES score of all participants was 29.83 ($SD = 3.38$). The mean post-GSES scores of all participants was 32.83 ($SD = 4.48$). The pre-GSES scores ranged between 22.00 and 35.00 with the post-GSES scores ranging between 22.00 and 40.00 (see Table 2). When comparing the mean scores, there was a three-point increase between the mean pre-GSES score and the mean post-GSES score. In addition, when all 10 questions were analyzed individually we found that there was an overall trend to the right in the percent of participants who selected 3 (moderately) or 4 (exactly) on the post GSES questionnaire. When the questions were examined individually, the mean scores of each of the 10 individual questions on post-GSES was greater than the mean scores of the 10 individual questions on the pre-GSES questionnaire (see Table 3). Based on these results, it appears that participants improved their

overall perceived self-efficacy to provide their peers feedback during peer to peer review after participating in the professional development session.

When the data were split between participants with previous peer to peer review (n=12) and those without (n=12), the mean pre-GSES score for those without previous experience was 28.75 (SD = 3.02) and the average post-GSES score for participants without previous experience was 32.583 (SD = 4.03). The pre-GSES scores for this group ranged between 22.00 and 32.00 with the post-GSES scores ranging between 26.00 and 40.00 (see Table 4). The average pre-GSES score was 30.92 (SD =3.50), and the average post-GSES score was 33.08 (SD = 5.05) for participants with prior peer to peer review experience. The pre-GSES scores for this group ranged between 25.00 and 35.00 with the post-GSES scores ranging between 22.00 and 39.00 (see Table 4). The mean post-GSES score was three points higher than the mean pre-GSES scores.

Paired t-tests were used to compare the differences between the GSES score before and after the professional development session. There was a statistically significant difference between the mean pre and post-GSES scores, $t(23) = -4.36, p < .001$. When participants with previous peer to peer review experience and those without were split, both groups demonstrated significant differences in the average pre-GSES and post-GSES score; $t(11) = -3.838, p < 0.003$ for participants with previous experience and $t(11) = -2.335, p < 0.040$ for participants with previous experience.

Discussion

Peer review is an essential component of professional nursing. It is a driving force for self-regulation, quality, safety, and innovation. Without peer review, nursing as a profession would fail to self-regulate and would be at risk for practice regulation from non-nursing entities.

Empowering nurses to engage in peer to peer review at all levels is necessary for the successful implementation of a peer to peer review model. A critical component to this empowerment is providing nurses with the communication and interpersonal skills necessary to provide and accept feedback.

In this study, we found that professional development sessions to improve communication skills during peer review increased participants' perceived self-efficacy after participating in the session. These results were similar to those of Ammentorp, Sabroe, Kofoed & Mainz, 2007; Norgarrd, Ammentorp, Kyvik, & Kofoed, 2012; and Norgarrd et al., 2012. However, the intervention in the Norgarrd study was a larger scale study in terms of the length of the intervention and inclusion of two health disciplines professionals. Participants in their study were physicians and nurses who were trained for five days on how to effectively communicate with patients and peers (Norgarrd et al., 2012).

This study is consistent with the intervention used in Thompson and George (2017) study under the premise that nurses respond well to short, targeted courses aimed to improve their self-efficacy. Thompson and George (2017) also used a modified GSES questionnaire to determine if an online course effected learner self-efficacy as it relates to their perceived ability to recognize and address bullying behaviors in new nurses transitioning to the workforce. The researchers found that there was a significant increase in perceived self-efficacy in their sample after the completion of the brief online course. The findings of both studies suggest that short, directed professional feedback sessions should not be overlooked due to their brief nature. They provide economical and timely opportunities for organizations to foster the professional development of RNs.

Both Ammentorp et al. (2007) and this study relied on active teaching methods which required a significant amount of subject participation and has been proven to show positive effects on subjects' self-efficacy. Despite the small sample size, the significant findings in this study can still be considered meaningful similar to Ammentorp et al. (2007) study that also included a small sample size of $n=28$. When Ammentorp et al. (2007) calculated the mean self-efficacy score in their intervention group; they found there was up to a 37% increase in the participants' mean score immediately post intervention.

The high levels of participant interaction encouraged by the small class size was instrumental in moving the participants through all the four components of Bandura's theory of self-efficacy, specifically vicarious experience. High levels of subject participation during communication skills courses is supported in the literature as a successful technique to improve communication skills self-efficacy (Berkhof, Van Rijssen, Schellart, Anema & Van Der Beek, 2010; Merckaert, Libert, & Razavi, 2005). In Berkhog et al. (2010), a systematic review of communication skills training strategies found that role-playing and small group reflection were the most successful used strategies. In this study, during each of the professional development sessions, RNs were quick to engage in conversation about poor peer review experiences. Participants shared both good and bad experiences with peer to peer review, which lead to in-depth conversations about their experiences. The ability to share these stories allowed participants to engage in self-reflection and visualize how they may use their newfound communication skills in the future.

Overall, RNs working in an ambulatory care setting benefitted from professional development sessions regardless of their previous experience with peer to peer review. There was a notable difference in pre and post-GSES mean summative scores between the groups that

had previous experience and those that did not. We found that participants with previous experience reported higher levels of self-efficacy than those without previous experience, prior to the professional development session and after the development session. This finding suggests performance outcomes from previous experiences may positively influence the individual's perceived self-efficacy. However, both groups demonstrated statistically significant improvements after attending the professional development sessions. The participants with previous experience benefited from the training and should be included in future professional development sessions. These findings support the inclusion of communication skills training for all RNs regardless of the RN's previous experience with peer review in peer to peer review programs.

Limitations

The study used a small sample size of nurses from one organization, which limits the generalizability of the results. A major concern in this study was the lack of randomization, which can lead to elevated results due to self-selection based on the participant's belief in the importance of peer review and good communication skills. Self-selectors may be more likely to engage in the intervention due to the value they place on the topic at hand. In addition, there was a lack of gender and racial diversity in this study's sample. A low rate of minority participants and a lack of gender diversity was also a limitation in the study. This study was also limited by geographical restrictions. Lastly, potential participants' work places were geographically diverse and they were unable to travel to either of the two locations where professional development sessions were offered.

Implications and Recommendations

These findings have implications for organizations that are in the midst of developing peer to peer review programs, as well as organizations with established peer to peer review programs. This study demonstrates the need for nursing leadership and educators to engage nurses in peer to peer review training and education regardless of prior experience with peer review. For a more robust and thorough peer to peer review experience, participating RNs need to feel confident in their skills to deliver effective, timely, and adequate feedback to their peers. Preparing them to do so starts with improving their perceived ability to do so through training and education. Nursing leaders will want to review their current processes for indoctrinating RNs to the organization's peer review process, and evaluate its effectiveness. For organizations that do not currently provide professional development for RNs to improve their feedback skills, nursing leadership should consider offering a course during RN orientation.

Future studies should include a larger sample of RNs as well as a greater number of male participants, in order to better understand if gender affects self-efficacy and communication skills during peer-to-peer review. In the larger sample, a greater number of ethnic minority participants is needed to better understand the effects that professional development sessions have on the perceived self-efficacy of these populations. Future studies should consider developing a virtual course with virtual data collection tools to reduce the impact of geographical diversity on the study.

Conclusions

Communication-focused professional development sessions for RNs with and without previous peer review experience increased their perceived self-efficacy to provide feedback to their peers during peer to peer review. Based on Bandura's theory of self-efficacy, the participants' increased perceived self-efficacy to provide feedback achieved through the

professional development session will influence their ability to engage in successful delivery and acceptance of feedback during peer to peer review. Further research should be conducted to determine if feedback training is valuable for RNs beyond ambulatory care and if gender, race, and education level significantly affect the participant's response.

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Appendix A
Theoretical Concept Model

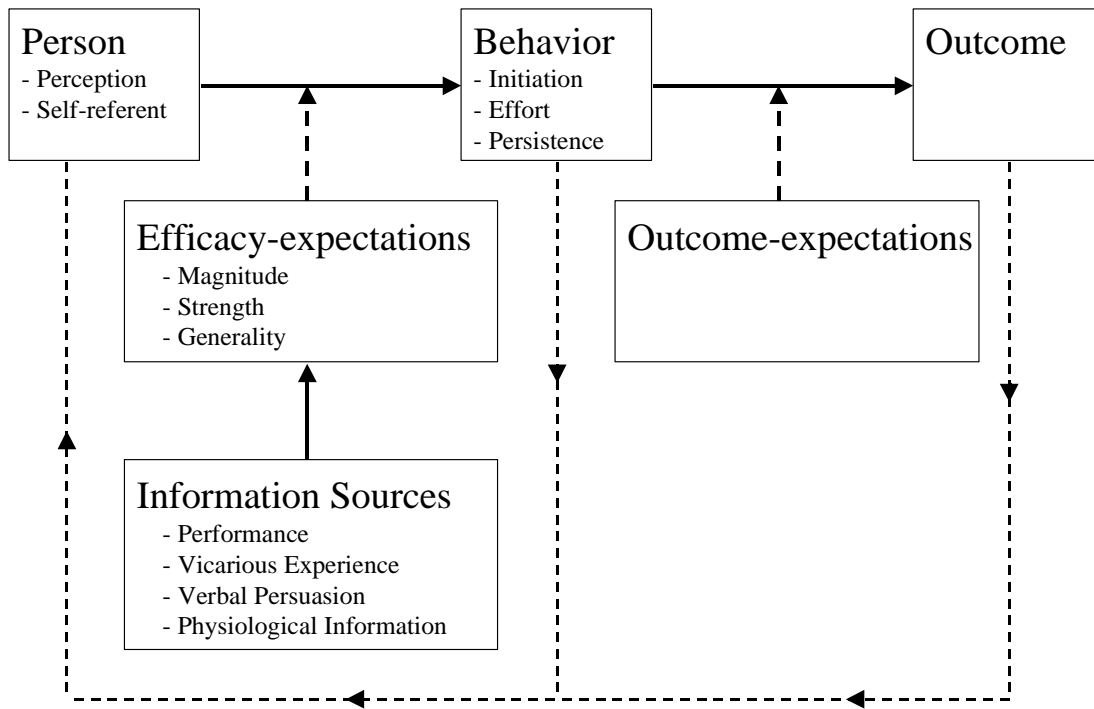


Figure 1. Theoretical Concept Model (Shortridge-Baggett & Van der Bijl, 1996)

Appendix B

Permission Letter to Use and Alter the GSES



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Permission granted

to use the General Self-Efficacy Scale for non-commercial research and development purposes. The scale may be shortened and/or modified to meet the particular requirements of the research context.

<http://userpage.fu-berlin.de/~health/selfscal.htm>

You may print an unlimited number of copies on paper for distribution to research participants. Or the scale may be used in online survey research if the user group is limited to certified users who enter the website with a password.

There is no permission to publish the scale in the Internet, or to print it in publications (except 1 sample item).

The source needs to be cited, the URL mentioned above as well as the book publication:

Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston, *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp.35-37). Windsor, UK: NFER-NELSON.

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Appendix C
Recruitment Script

Hello everyone, my name is Britt Conrad I'm an RN Clinical Manager with Senior Health Services and the leader of the Sentara Integrated Medical Group Nursing Professional Practice Council Peer to Peer Review Tool Subcommittee. Today we're going to discuss tactics and tricks for providing meaning feedback to your peers during peer review. As a part of this education program, I would like to track how effective this professional development session is as a part of my DNP Capstone Project. Participation is voluntary and confidential. If you decide to participate, three questionnaires take approximately 10 minutes to complete. Two questionnaires will be administered before the course and one after. Thank you for your consideration and participation in this research

Appendix D

Course Curriculum

1. Introduction
 - a. What is peer feedback?
 - b. Strategies to give effective feedback
 - c. Common mistakes when giving feedback
2. Physiological feedback
 - a. Fears associated with providing feedback
 - b. Open discussion about fears
 - c. Coping Mechanisms to deal with fears
 - d. Share successful techniques
3. Vicarious Experience
 - a. Case Study
 - b. Role Playing
 - i. Good example
 - ii. Poor example
 - c. Class reflection on roll play
 - i. One thing they did well
 - ii. One opportunity for improvement
4. Verbal Persuasion
 - a. Small group discussion
 - i. Challenges and difficulties they face during the roll playing exercises
5. Performance feedback wrap up
 - a. Reflection of previous experiences giving and receiving feedback
 - b. How can these experiences and skills learned help with peer to peer feedback

Appendix E

Altered General Self Efficacy Scale Pre/Post-Test

Participant ID: _____
Date: _____ Pre-Test

	Level of Truth:			
	Not at all	Barely	Moderately	Exactly
1. I can always manage to solve difficult problems when providing feedback to my peers.	1	2	3	4
2. If my peer disagrees with my feedback, I can find ways to carry a constructive conversation to find resolution to the disagreement.	1	2	3	4
3. It is easy for me to stick to my aims and goals while providing feedback to my peers.	1	2	3	4
4. I am confident that I could deal efficiently with unexpected reactions to feedback from my peer.	1	2	3	4
5. Thanks to my resourcefulness I know how to handle unforeseen situations while providing feedback to my peers.	1	2	3	4
6. I can solve most problems I come across while providing feedback to my peers if I invest the necessary effort.	1	2	3	4

Altered General Self Efficacy Scale Pre/Post-Test Continued

Participant ID: _____
Date: _____ Post-Test

	Not at all	Barely	Moderately	Exactly
7. I can remain calm when nervous or fearful of providing peer to peer feedback because of my coping abilities.	1	2	3	4
8. When I am confronted with a difficult peer to peer review, I can usually find several solutions.	1	2	3	4
9. If I am in a bind and don't know what to say while providing peer to peer feedback, I can usually think of something to say.	1	2	3	4
10. No matter what comes my way while providing feedback to my peers, I'm usually able to handle it.	1	2	3	4

Appendix F
Demographic Questionnaire

Participant ID: _____

Date: _____

- What is your age? _____
- What is your gender? Female Male Other
- What is your race? White/Caucasian Hispanic/Latino
 African American/Black Asian Pacific Islander
 Other
- What is your highest completed nursing education level?
 ADN BSN MSN DNP/PhD
- How many years of experience do you have as a registered nurse? _____
- Have you participated in peer to peer review previously as a registered nurse? Yes No

Table 1

Frequency of Demographic Data

Gender	Frequency
Male	0
Female	24
Race	Frequency
Caucasian	18
African American	4
Hispanic	2
Other	0
Nursing Education Level	Frequency
ADN	7
Diploma	2
BSN	13
MSN	2
DNP/PHD	0
Years of Experience	Frequency
< 5yrs	3
5yrs-10yrs	8
11yrs-15yrs	5
16yrs-20yrs	4
21yrs-30yrs	2
31yrs-40yrs	2

Table 2

Pre and Post-GSES Mean Score Distribution

Score	Pre GSES Frequency	Pre GESE Percent	Post GSES Frequency	Post GSES Percent
22.00	1	4.2	1	4.2
25.00	3	12.5	0	0
26.00	0	0	1	4.2
27.00	2	8.3	1	4.2
28.00	1	4.2	0	0
29.00	3	12.5	2	8.3
30.00	3	12.5	4	16.7
31.00	2	8.3	1	4.2
32.00	4	16.7	0	0
33.00	1	4.2	1	4.2
34.00	3	12.5	3	12.5
35.00	1	4.2	2	8.3
36.00	0	0	4	16.7
37.00	0	0	1	4.2
39.00	0	0	2	8.3
40.00	0	0	1	4.2
Total	24	100.0	24	100

Table 3

Pre and Post-GSES Individual Question Mean Scores

Question	Pre-GSES		Post-GSES	
	N	Mean	N	Mean
1	24	2.83	24	2.96
2	24	2.92	24	3.46
3	24	2.92	24	3.46
4	24	2.83	24	3.13
5	24	2.83	24	3.00
6	24	3.21	24	3.42
7	24	3.29	24	3.50
8	24	2.88	24	3.29
9	24	2.96	24	3.21
10	24	3.08	24	3.24

Table 4

Pre and Post GSES Score Distribution for Participants with and without Previous Peer Review Experience

Previous Experience	Pre GSES			Previous Experience	Post GSES		
	Score	Frequency	Percent		Score	Frequency	Percent
No	22.00	1	8.3	No	26.00	1	8.3
	25.00	1	8.3		29.00	2	16.7
	27.00	2	16.7		30.00	2	16.7
	29.00	2	16.7		31.00	1	8.3
	30.00	2	16.7		34.00	2	16.7
	31.00	2	16.7		36.00	3	25.0
	32.00	2	16.7		40.00	1	8.3
	Total	12	100.0		Total	12	100.0
Yes	25.00	2	16.7	Yes	22.00	1	8.3
	28.00	1	8.3		27.00	1	8.3
	29.00	1	8.3		30.00	2	16.7
	30.00	1	8.3		33.00	1	8.3
	32.00	2	16.7		34.00	1	8.3
	33.00	1	8.3		35.00	2	16.7
	34.00	3	25.0		36.00	1	8.3
	35.00	1	8.3		37.00	1	8.3
	Total	12	100.0		Total	12	100.0