

A statewide initiative integrating Quality and Safety Education for Nurses (QSEN) through academic-clinical partnerships to improve health outcomes



Teri M. Chenot^{*,1}, Roberta Christopher²

Keigwin School of Nursing, Jacksonville University, Jacksonville, FL, United States of America

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ABSTRACT

The purpose of this article is to describe an innovative project that contributed to the work of Quality and Safety Education for Nurses (QSEN's) second generation which resulted from the original initiative and the awareness that new environments, partnerships, and strategies were needed to improve quality and safety. It is the only known project that served as a pilot model to disseminate the QSEN competencies across an entire state to build academic-clinical partnerships and can be replicable across the country. Findings from the current project highlighted the following: (a) the need for ongoing education for both academic and clinical partners regarding the QSEN competencies as well as ongoing coaching to develop those collaborative relationships; (b) an awareness among the partnerships of the competing time demands with their other work responsibilities to complete their QSEN project; and (c) many unforeseen positive outcomes including the establishment of the QSEN Institute Regional Center at Jacksonville University. Supported by a mini-grant by the Florida Blue Foundation it is the authors' beliefs that we have now moved onto the third generation of QSEN due to the leveraged opportunities to further improve health outcomes.

Background

The Quality and Safety Education for Nurses (QSEN) project began in 2005 (QSEN, 2018) as a result of the two Institute of Medicine (IOM) reports that addressed the number and types of medical errors in medical institutions across the United States (IOM, 2001; Kohn, Corrigan, & Donaldson, 1999). The IOM report (Kohn et al., 1999) included a study that found that the number of Americans who die each year due to medical errors may be as high as 98,000 making deaths due to medical errors the eighth leading cause of death. A more recent report by James (2013, p. 122) has indicated, however, that premature deaths associated with preventable harm to patients were estimated at > 400,000 per year. The alarming statistics from these reports called for a new and different skill-set for health professionals such as: (a) patient-centered care; (b) interdisciplinary teams; (c) evidence-based practice; (d) quality improvement; and (e) informatics (Greiner & Knebel, 2003).

The QSEN project was funded by the Robert Wood Johnson Foundation (RWJF), had three phases between 2005 and 2012, and was considered to be part of QSEN's first generation. The overall goal through all phases of QSEN has been to address the challenge of

preparing future nurses with the knowledge, skills, and attitudes (KSAs) necessary to continuously improve the quality and safety of the healthcare systems in which they work (QSEN, 2018). During Phase I of the project six competencies were defined and included five from the Institute of Medicine (Greiner & Knebel, 2003): (a) patient-centered care; (b) teamwork and collaboration; (c) evidence-based practice; (d) quality improvement; (e) informatics; and (f) safety. In addition to these definitions, sets of (a) knowledge, (b) skills, and (c) attitudes for each of the six competencies were created for use in nursing pre-licensure programs (Cronenwett et al., 2007). Phase II consisted of the pilot schools integrating the six competencies in their school curriculum and the launching of the QSEN website to share teaching strategies and resources (QSEN, 2018). Phase III marked the development of a collaboration between QSEN and the American Association of Colleges of Nursing (AACN) to: (a) develop the faculty expertise necessary for the nation's nursing schools to teach the competencies; (b) focused on including the competencies in textbooks, licensing, accreditation, and certification standards; and (c) promote continued innovation in teaching the competencies (QSEN, 2018).

In 2012, the RWJF provided additional funding to AACN to include the graduate nursing education programs in the QSEN initiative

* Corresponding author at: Keigwin School of Nursing, Jacksonville University, 2800 University Blvd., Jacksonville, FL 32211, United States of America.
E-mail address: tchenot@ju.edu (T.M. Chenot).

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whereby the new project will provide educational resources and training to enhance the ability of faculty in master's and doctoral nursing programs to teach quality and safety competencies (QSEN, 2018). The QSEN initiative has been an innovative international movement in nursing history and it has been suggested that the second generation of QSEN work is underway which involves quality and safety in practice and interprofessional domains (Barnsteiner & Disch, 2012, p. xi; Bednash, Cronenwett, & Dolansky, 2013, p. 67). The purpose of this project was to contribute to the work of QSEN's second generation.

Literature Review

The goal of the QSEN initiative is to prepare nurses with the competencies to continuously improve the quality and safety of the health care systems in which they work (Cronenwett et al., 2007, p. 122; QSEN, 2018). To meet this goal an evaluation and enhancement of nursing school curricula needed to occur (Cronenwett et al., 2007, p. 124; QSEN, 2018). During this timeframe Chenot and Daniel (2010, p. 567) examined nursing students' perceptions about their (a) awareness, (b) skills, and (c) attitudes regarding patient safety, as compared to the six QSEN domains in their schools of nursing curriculum and found opportunities for improvement. Cronenwett et al. (2007, p. 126) found through (a) nursing faculty surveys; (b) focus groups; and (c) new graduate feedback that, although faculty thought that they were teaching the QSEN competencies, the participants did not understand fundamental concepts related to the competencies and could not identify teaching strategies to develop the students' (a) knowledge, (b) skills, and (c) attitudes (KSAs).

The American Association of Colleges of Nursing (AACN) received funding from a RWJF grant in 2008 to offer eight (8) train-the-trainer QSEN institutes to faculty in prelicensure programs in the United States with the purpose of providing them with teaching tools and strategies for use in the integration of the quality and safety content into the curricula (Barnsteiner et al., 2012, p. 69). Faculty surveys from the institutes indicated that they lacked knowledge of quality improvement methods and were uncomfortable teaching this content (Barnsteiner et al., 2012, p. 71). A majority of the faculty reported that their schools had academic-practice partnerships to discuss the enhancement of curriculum and priorities of each institution (Barnsteiner et al., 2012, p. 73).

In 2008, the RWJF and the IOM launched an initiative with the future of nursing to address the need to transform the profession to improve health outcomes (IOM, 2001). Prior to the release of this report, AACN and the American Organization of Nurse Executives (AONE) joined to form a national task force on academic-practice partnerships to advance the future of the profession to improve healthcare in the United States (Beal et al., 2012, p. 328). The task force defined an academic-practice partnership as a way to move nursing practice forward to improve health outcomes (Beal et al., 2012, p. 328). The task force supported the belief that such relationships are (a) formalized; (b) based on mutual goals; (c) mutual respect; and (d) shared knowledge (Beal et al., 2012, p. 328).

The traditional approach for academe and practice to meet the current healthcare needs involved parallel play and separate policies which no longer meet the needs of the evolving healthcare landscape (Warner & Burton, 2009, pp. 329–330). The need for radical change in the nursing profession promoted innovation in developing academic-practice partnerships such as: (a) dedicated education units (DEU) that offers solutions to faculty workload and enables schools to enroll more students (Warner & Burton, 2009, p. 330); (b) community partnerships to address nursing workforce issues (Breslin et al., 2011, pp. e33–e34); (c) enabling students' exposure to one site for a health system experience with the assistance of a clinical integration partner (CIP) (Didion et al., 2013, pp. 88, 90); and (d) a statewide transformation in education to improve quality and safety in patient care by engaging diverse partners for development and implementation (Mundt et al., 2012, p.

117).

Change occurs more rapidly in the clinical setting than in the academic setting due to the lengthy process such as: (a) faculty curriculum development; (b) curriculum committee review and approval; and (c) implementation. New graduates have been exposed to the QSEN competencies via (a) faculty; (b) teaching strategies; and (c) textbooks, however, practicing nurses may not have been exposed to the enhanced curriculum.

The QSEN competencies can serve to bridge the gap between academe and practice. These competencies can be aligned with The Joint Commission Accreditation Standards and the Magnet model components to promote understanding of patient safety terminology and improve health outcomes among all practicing nurses (Koffel, Burke, McGuinn, & Miltner, 2017, p. s49; Lyle-Edrosolo & Waxman, 2016, p. 71). Most recently, the *New Era* report was published that provided guidelines to: (a) achieve enhanced academic-practice partnerships to advance integrated systems of healthcare; (b) improve health outcomes; and (c) promote new innovative models (AACN, 2016; Sebastian et al., 2017, p. 110).

Grant Overview

In 2013, the Florida Blue Foundation implemented a new mini-grants program, in partnership with the Florida Action Coalition, to advance the goals and objectives of the Florida Action Coalition, addressing the IOM recommendations from the *Future of Nursing: Leading Change, Advancing Health (Committee on the Robert Wood Johnson Foundation Initiative, 2010)*. Jacksonville University was awarded \$44,883 in January 2014 for the three-year project, *A Statewide Initiative Integrating Quality and Safety Education for Nurses (QSEN) Through Academic-Clinical Partnerships to Improve Health Outcomes*. The funding provided the development of training modules to provide quality and safety education to nurses and build on academic-clinical partnerships to improve health outcomes for Florida residents. The authors served as Co-Investigators for the project. It was anticipated that the project would serve as a pilot and be replicable in other states.

The grant was a logic-model format with milestone activities such as: (a) four workshops to be conducted quarterly from 2014 to 2015 across the state of Florida with an estimated attendance rate of 50 participants; (b) a Florida QSEN Summit to be held in 2016 for the nurse participants in the academic-clinical partnerships to attend and present their QSEN projects; (c) publication in one peer-review journal; and (d) acceptance for two presentations on the initiative. The goals and outcomes for the initiative are in Table 1 (see Appendix A). Recruitment for the workshop sites and participants were conducted with the assistance of several professional nursing organizations such as: (a) Florida Association of Colleges of Nursing (FACN); (b) Florida Center for Nursing (FCN); (c) Florida Nurses Association (FNA); (d) Florida Organization of Nurse Executives (FONE); (e) Jacksonville Association of Nurses in Education (JANIE); and (f) Northeast Florida Association for Healthcare Quality (NFAHQ) via membership listserv e-mail notifications. Consideration was given for (a) diverse academic-clinical workshop sites; (b) varied locations in the state; and (c) sites that could accommodate the increased parking need for the workshop participants.

The first author collaborated with each of the four workshop site liaisons to pre-plan arrangements such as: (a) site academic-clinical partners' attendance and welcome address to the participants; (b) classroom; (c) audiovisual requirements; (d) catering requests; (e) parking; and (f) security issues. In addition, the first and second authors needed to plan their (a) work schedule; (b) travel; (c) workshop supplies; and (d) hotel accommodations for each workshop as they served as the workshop facilitators and took QSEN on the road to build academic-clinical partnerships. The workshop registrants were provided with a registration form to complete and e-mail back to the first author. The form provided the registrant with an overview of the workshop and

expectations (see Tables 2 and 3 in Appendices B and C). One week prior to the event the registrants were sent a confirmation letter that contained hotel information and maps to the site. The participants were provided with the following that were complimentary: (a) pre-workshop reading assignments; (b) pre-workshop QSEN KSA survey; (c) meals; (d) syllabus; (e) continuing education units/certificate; (f) door prizes; and (g) ongoing QSEN updates via e-mail. The baseline program pre-assessment, the QSEN Academic-Clinical Partner Competency Assessment Questionnaire (ACPCAQ) (Christopher & Chenot, 2014), was administered online via email to all program registrants before their respective workshop by the second author, and two years post program to evaluate post-program, sustained competence.

The four workshops focused on the following content topics and basic elements (see Table 3 in Appendix C):

- a) background and history of the QSEN competencies;
- b) academic-clinical partnerships;
- c) the “So What” question and need for partnerships and QSEN; and
- d) deep dive into the QSEN competencies and KSAs; and
- e) building academic-clinical partnerships.

The four workshops were conducted between August 2014 and April 2015. Table 4 (Appendix D) highlights the diversity of locations, academic-clinical partnerships, and number of attendees. The first QSEN workshop was conducted on August 28, 2014, in North Florida at an academic medical center and had 55 attendees that were primarily nursing faculty and clinical educators from local universities and healthcare organizations. The second QSEN workshop was conducted on October 20, 2014 in Southwest Florida at a large community hospital and had 21 attendees that were primarily nursing faculty from local universities and nursing staff from the workshop site. The third QSEN workshop was conducted on January 23, 2015 in Southeast Florida at a state college and had 29 attendees that were (a) primarily nursing faculty at the workshop site; (b) from local healthcare organizations; and (c) a few nursing faculty that traveled from across the state. The final QSEN workshop was conducted on April 10, 2015 in Central Florida at a large academic medical university and had 31 attendees that were (a) nursing faculty from technical schools; (b) nursing faculty from state colleges and universities; (c) nursing staff from government medical centers; and (d) nursing staff from local healthcare organizations.

QSEN Academic-Clinical Partner Competency Assessment Questionnaire (ACPCAQ) instrument

Instrument Development

For instrument development, the definition of content validity, by Haynes and Kubany (1995, p. 238), was “the degree to which elements of an assessment instrument are relevant to, and representative of, the targeted construct for a particular assessment purpose.” According to Lynn (1986), content validity can be established through the application of a two-stage process: development and judgement. The QSEN ACPCAQ (Christopher & Chenot, 2014) was developed using the original graduate QSEN knowledge, skills, and attitude (KSAs) competencies (Cronenwett et al., 2009). The graduate competencies were appropriate, as the majority of participants were graduate prepared nurses or had extensive nursing experience. Each of the six QSEN competency domains were then developed into an online questionnaire using Benner’s (1984) novice to expert model. The domains included (a) patient-centered care; (b) teamwork and collaboration; (c) evidence-based practice; (d) quality improvement; (e) safety; and (f) informatics. Each of the six competency domain items were self-rated using a five-point scale based on Benner’s competency domains (1 = Novice, 2 = Advanced Beginner, 3 = Competent, 4 = Proficient, and 5 = Expert).

Instrument judgement

For the judgement stage, five reviewers, who were versed in the QSEN competencies, reviewed and assisted with the revision of the instrument for face and content validity. For face and content validity assessment, a dichotomous scale was used with categorical options of “Yes” and “No,” which indicated a favorable or unfavorable item respectively. A favorable item means the item was objectively structured, clarity and readability were appropriate, and the questionnaire was adequate to assess the self-perceived competence for each QSEN competency domain. The panel was also requested to give qualitative comments and additional suggestions to improve the needs assessment questionnaire.

Exploratory factor analysis

Assumptions

SPSS Version 24 and *Intellectus Statistics* (2017) online computer software for statistical analysis were used for the analysis. Exploratory factor analysis (EFA) was conducted for the six variables using the Kaiser criterion for determining the number of factors to retain with varimax rotation. Since maximum likelihood estimation (MLE) was used to extract the factors, the assumption of multivariate normality is required (Floyd & Widaman, 1995) and was assessed graphically. Next, the factorability and multicollinearity assumptions were tested by examining the correlation matrix.

Multivariate normality and factorability

To assess the assumption of multivariate normality, Mahalanobis distances were calculated for the data and plotted against the quantiles of a Chi-square distribution (DeCarlo, 1997; Field, 2013). The Mahalanobis distance scatterplot met the requirements for multivariate normality. To assess the factorability of the data, Pearson correlations were calculated to determine the intercorrelations for each variable. According to Tabachnick and Fidell (2013), correlation coefficients should exceed 0.30 in order to justify comprising the data into factors. All variables had at least one correlation coefficient > 0.30 and were suitable for factor analysis.

Multicollinearity

Although variables should be intercorrelated with one another, variables that are too highly correlated can cause problems in EFA. To assess multicollinearity, the determinant of the correlation matrix was calculated. A determinant that is ≤ 0.00001 indicates that multicollinearity exists in the data (Field, 2013). The value of the determinant for the correlation matrix was 0.0027, indicating that there is no multicollinearity in the data.

Results

The factor loadings were interpreted by taking the absolute value of each loading and implementing the criterion suggested by Comrey and Lee (2013). Values > 0.71 are considered excellent; values between 0.63 and 0.71 are very good; values between 0.55 and 0.63 are good; values between 0.45 and 0.55 are fair; and values between 0.32 and 0.45 are poor. Tabachnick and Fidell (2013) also recommend that 0.32 should be the minimum threshold used to identify significant factor loadings.

These guidelines were used to determine the cutoff in selecting which loadings should be included for each factor. To determine the number of factors, the Kaiser criterion was chosen for electing how many factors to retain. According to this rule, all factors that have an eigenvalue greater than one are retained for interpretation. The observed eigenvalues were extracted from the correlation matrix with the diagonal of the matrix being replaced by each variable’s squared multiple correlations (Ledesma & Valero-Mora, 2007; Montanelli & Humphreys, 1976) to estimate each variable’s communality (DiStefano,

Zhu, & Mindrila, 2009; Stewart & Ware, 1992). Kaiser's eigenvalue-greater-than-one rule is a simple and common practice used throughout research (Floyd & Widaman, 1995; Ledesma & Valero-Mora, 2007; Yong & Pearce, 2013). A scree plot along with the Kaiser criterion was used for determining the number of significant factors. Examination revealed one factor that had an eigenvalue greater than one. As a result, one factor was used for the EFA. Therefore, the instrument's items were treated as one scale (the QSEN ACPCAQ) with all items for reliability testing.

Factor summary and structure

Factor 1 accounted for 88.87% of variance with an eigenvalue of 2.67. The one-factor model accounted for 88.87% of total variance in the data. According to Costello and Osborne (2005), examining the communality of each variable, checking for cross-loadings across multiple factors, and inspecting the number of strong loadings for each factor are good ways to analyze the validity of the factor structure. There were no variables with a low communality (< 0.40). This indicates that the factor structure describes the data well (Costello & Osborne, 2005). Cross-loadings occur when there are loadings (> 0.32) for a single variable across multiple factors. There were no variables with cross-loadings, which suggest a factor structure that is simple and easy to interpret. Each factor had at least three significant loadings (> 0.32), which is indicative of a strong and solid factor (Osborne and Costello, 2004).

Internal consistency reliability

A Cronbach alpha coefficient was calculated for the QSEN ACPCAQ instrument (single factor scale) to evaluate internal consistency reliability. The Cronbach's alpha coefficient was evaluated using the guidelines suggested by George and Mallery (2016) where > 0.9 excellent, > 0.8 good, > 0.7 acceptable, > 0.6 questionable, > 0.5 poor, and ≤ 0.5 unacceptable. The QSEN ACPCAQ had a Cronbach's alpha coefficient of 0.93, indicating excellent reliability. Table 5 presents the results of the reliability analysis (see Appendix E).

Program summary

After the invitation to participate was distributed throughout the State of Florida, interested academic/clinical partners applied for participation in the formal program. Selected participants agreed to identify regional academic-clinical partnership opportunities to develop and implement best practices related to QSEN competencies for pre-licensure and practicing nurses across the education and practice continuum. Thus, the program was designed to establish baseline self-perceived QSEN competency levels.

Because the program was not designed as a systematic investigation, with the intent to contribute generalizable knowledge, the program was deemed program evaluation and did not meet criteria for human subject's research as defined under 45 CFR 46.102(d) (OHRP, 2009). As part of the program evaluation, the baseline assessment allowed the program facilitators to identify cohort and overall participant competency strengths and areas for enhancement via the site workshops. The composite of each cohort differed from a competency and practice standpoint. Some groups had more participants from the clinical practice setting, the academic setting, or an equal blend from both settings. Therefore, the program facilitators adjusted the emphasis to meet specific cohort competency and partnership needs. The workshops were also aimed at creating meaningful relationships between the academic and clinical partners. The focused intention included (a) developing an action and implementation plan to initiate academic-clinical partnerships focused on integrating quality safety education for nurses (QSEN) competencies to improve health outcomes; (b) best practices for statewide and national dissemination; and (c) to envision strategies for presenting best practices at the Year 3 Florida QSEN Summit.

During the program workshops, each participant received a toolkit, which included (a) detailed information for each of the competency domains; (b) workshop presentations; (c) QSEN related scholarly articles; and (d) quick reference guides. The one-day workshops focused on each competency area, including evidence-based practice, patient-centered care, informatics, quality improvement, safety, and teamwork and collaboration. The workshop objectives were as follows:

1. Examine the QSEN competencies for knowledge, skills, and attitudes (KSAs) for development of best practices for academic/clinical partnerships
2. Identify regional academic/clinical partnership opportunities to develop and implement best practices related to QSEN competencies for pre-licensure and practicing nurses across the education and practice continuum.
3. Develop an action and implementation plan to initiate academic/clinical partnerships focused on integrating QSEN competencies to improve health outcomes and best practices for statewide and national dissemination.
4. Discuss strategies for presenting best practices at the Year 3 Florida QSEN Summit.

Because each cohort had different types of participants, collaborations, strengths and identified areas for enhanced competency, the facilitators went through each of the QSEN domain's KSAs in detail to allow for questions, clarification, discussions, and competency development. The collaborative teams then identified potential opportunities for collaboration and partnership within each domain, with the goal of selecting a key domain focus area and developing draft strategies for action planning and implementation. The partners were then invited to share their respective academic-clinical partnership best practices at the year three summit held at Jacksonville University.

Program assessment and evaluation

The final QSEN Academic-Clinical Partner Competency Assessment Questionnaire (Christopher & Chenot, 2014) was administered prior to each workshop to registered participants via an online survey. Responses were anonymous and reported in aggregate for each workshop. The pre-assessment informed the examination of cohort's QSEN competency self-reported levels for knowledge, skills and attitudes, pre-workshop; therefore, additional emphasis could be placed on the KSAs with lower scores.

Both the safety and quality domains had a mean score across all cohorts of 2.22 (see Figs. 1 and 2 in Appendix F). The safety domain scores (see Fig. 1 in Appendix F) ranged from a high of 2.38 to a low of 2.1 on a 1 = novice to 5 = expert ordinal scale. The quality improvement domain scores (see Fig. 2 in Appendix F) ranged from a high of 2.38 to a low of 2.1 on a 1 = novice to 5 = expert ordinal scale. The evidence-based practice domain scores (see Fig. 3 in Appendix F) ranged from a high of 2.50 to a low of 2.21 on a 1 = novice to 5 = expert ordinal scale. The patient-centered care domain scores (see Fig. 4 in Appendix F) ranged from a high of 2.56 to a low of 2.13 on a 1 = novice to 5 = expert ordinal scale. The teamwork and collaboration domain scores (see Fig. 5 in Appendix F) ranged from a high of 2.44 to a low of 2.17 on a 1 = novice to 5 = expert ordinal scale. Finally, the informatics domain scores (see Fig. 6 in Appendix F) ranged from a high of 2.00 to a low of 1.79 on a 1 = novice to 5 = expert ordinal scale.

The highest rated domain across all cohorts was patient-centered care, with a mean score across all cohorts of 2.36 on a 1–5 ordinal scale (see Fig. 7 in Appendix F). The high self-perceived competency ratings for the patient-centered care domain may be explained by the nursing profession's long theoretical and practice focus on placing the patient at the center of everything we do, dating back to Florence Nightingale and the Florence Nightingale Pledge (Gretter, 1936). The lowest rated

domain (see Fig. 7 in Appendix F) across all cohorts was informatics, with a mean score across all cohorts of 1.92 on a 1–5 ordinal scale. The low self-rated competency domain may be explained by the professional make-up of the group, which did not include a large number of informaticists or informatics experts. The informatics domain is also a recently emerging competency with the advent of the widespread use of technology and electronic health records in nursing practice. The second author is a certified healthcare technology specialist clinical practitioner and was able to share innovative ways technology and informatics could be leveraged in the academic-clinical partnership projects. She also served as an informatics resource to the partners during project development and implementation while their informatics competencies were being further enhanced. Informatics is a competency domain that will need further development from a knowledge, skills, and attitude perspective for future academic-clinical partnerships.

One of the program evaluation goals was to re-measure the participants' post program competency levels using the same QSEN Academic-Clinical Partner Competency Assessment Questionnaire two years post workshop. However, more than half of the participant's emails were returned as undeliverable and participation numbers were too low to analyze. Key program outcomes measured during the scope of the program included (a) number of participants at each workshop and the culminating summit; (b) number of dissemination activities, including poster and podium presentations and publications; and (c) to formalize a statewide initiative and best practice for leveraging academic-clinical partnerships as a strategy to improve health outcomes.

Florida QSEN Summit

The *Florida QSEN Summit* was conducted on March 4, 2016 at Jacksonville University and served as the capstone experience for the project. The workshops were completed the previous year, so the timeframe provided at least a year for the QSEN academic-clinical partnerships to collaborate on the projects. Invitations were e-mailed to all of the participants with response options. In addition, the project stakeholders and nursing students from local academic institutions were invited. The *Summit* was an all-day conference that was complimentary for all attendees and included: (a) meals; (b) syllabus; (c) continuing education units/certificate; and (d) door prizes.

There were approximately 200 attendees. Six QSEN teams attended and presented at the *Summit* and two additional teams sent their presentations to be included on the website. One of the teams (a) implemented, (b) evaluated, and (c) revised an RN-BSN program to include the QSEN competencies with their clinical practicum partners. Two of the teams' presentations were on the clinical integration of QSEN throughout their health systems and included: (a) a Clinical Coach Course and Nurse Residency Program; and (b) QSEN concepts integrated into their organization's Professional Practice Model. The list of the *Florida QSEN Summit* presentations is in Table 6 (see Appendix G).

There was a QSEN networking luncheon to encourage the sharing of best QSEN practices with a final wrap-up session on next steps for their academic-clinical partnership plan led by the facilitators. The media attended the event with a subsequent article that was published the next day in the local newspaper on the topic of bullying and incivility. A presentation for the project earned the overall first place poster award at the *2015 QSEN International Forum*. One of the QSEN teams had their project accepted for a poster presentation at the *2016 QSEN International Forum*. The *Florida QSEN Summit* was an overwhelming success that laid the groundwork to develop the *2017 Patient Safety Forum* that was a half-day interprofessional conference and was implemented with remaining grant funds.

Lessons learned

There were several lessons to be learned from this project. First, to take QSEN on the road to build academic-clinical partnerships was labor intensive, such as: (a) planning the work schedules for the two facilitators; (b) statewide travel with all of the hotel accommodations and training supplies; (c) coordination with each site liaison to arrange the meeting room location and audiovisual requirements; (d) work with each site for the catering services as each site had their own catering organization requirements; and (e) parking services for the possibility of 50 attendees during the regular work week. It should be noted that (a) significant funding; (b) commitment; (c) time; and (d) effort will probably be needed to replicate this project.

Second, there was a commitment of potential registrants to develop a QSEN project with an academic-clinical partner. The project was not prescriptive in nature as to the type or magnitude of a QSEN project so as to encourage innovation and not deter novice QSEN partnerships. Anecdotally, some potential nursing faculty registrants from research intensive universities reported competing demands and viewed the development of a QSEN project as too time consuming which presents opportunities for improvement to promote the integration of quality and safety projects in all clinical research trajectories.

Third, the highest attendance (55) was at the first QSEN workshop in North Florida and exceeded the goal of 50. This might be attributed to the fact that both facilitators reside and work in North Florida, therefore, the workshop might have been easier to promote among nursing colleagues. Additionally, the remaining workshops were scheduled during an unforeseen circumstance, i.e. the Ebola crisis, and many of the potential attendees had the competing demand of conducting mandatory Ebola training at their own healthcare organizations.

Finally, the pre-conference QSEN Academic-Clinical Partner Competency Assessment Questionnaire scores differed by competency and cohort. Many attendees that attended the workshops had "heard" about QSEN and wanted to gain a better understanding of the KSAs. Not only was training provided during the workshop on the QSEN framework but also education and coaching were provided on the successful development of academic-clinical partnerships. Additionally, many of the participants were lost to contact, as the work emails were predominantly used. For future programs such as this, the recommendation would be to also obtain their personal email addresses. Thus, a key limitation was the inability to evaluate post program outcomes.

Implications for nursing

The current project contributed to the work of QSEN's second generation which addressed the development of (a) innovative environments; (b) new partnerships; and (c) interprofessional collaboration (Barnsteiner & Disch, 2012, p. xii; Bednash et al., 2013, p. 67). The project demonstrated success with a mini-grant by piloting a model to take QSEN on the road for participants' convenience to build academic-clinical partnerships throughout the state of Florida which can be replicated throughout the country. The participants gained new knowledge regarding the QSEN competencies and applied that knowledge with the development of their innovative partnerships. Several teams took their projects to new levels by utilizing the topics (a) towards their DNP projects; (b) integration of their QSEN toolkit into their academic classroom to benefit their students; (c) enhancement of clinical best practices; and (d) local and national podium/poster presentations to disseminate the new knowledge gained with the overall goal of improving health outcomes. The present project's goal was to build the academic-clinical partnerships to integrate QSEN. Future research studies could measure any improved health outcomes as a result of these partnerships.

The project highlighted the need for ongoing education for both academic and clinical partners regarding the QSEN competencies as

well as ongoing coaching to develop those collaborative relationships. There was an increasing awareness among the partnerships of the competing time demands with their other work responsibilities such as: (a) additional planning meetings with partners and supervisors; (b) additional time with staff and/or students involved with the project; and (c) the development of a skill-set associated with introducing change and negotiation for a win-win for the partnerships and their QSEN project.

The project also culminated in many unforeseen positive outcomes such as: (a) national and international podium and poster presentations; (b) publications; and (c) the establishment of the QSEN Institute Regional Center at Jacksonville University that has hosted a highly successful interprofessional *Patient Safety Forum* with academic-clinical partnerships that have served as collaborators and sponsors including a college of medicine in the past two years. The aim of the Center is to promote synergy to foster quality and safety education and scholarship at the regional level.

Conclusion

The current project contributed to the work of QSEN's second generation. It is the only known innovative project that served as a pilot model to disseminate the QSEN competencies across an entire state to build academic-clinical partnerships and can be replicable across the country to improve health outcomes. Findings from the current project highlighted the need for ongoing education for both academic and clinical partners regarding the QSEN competencies as well as ongoing coaching to develop those collaborative relationships. There was an

awareness among the partnerships of the competing time demands with their other work responsibilities to complete their QSEN project. The project culminated in many unforeseen positive outcomes including the establishment of the QSEN Institute Regional Center at Jacksonville University. It is the authors' beliefs that we have now moved onto the third generation of QSEN due to the leveraged opportunities to further improve health outcomes.

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Appendix A

Table 1
Grant goals and outcomes.

Grant goals and outcomes	
Goal #1: Integrate quality and safety education for nursing (QSEN) through academic/clinical partnerships to improve health outcomes.	Outcomes: <ul style="list-style-type: none"> ● Target qualified academic/clinical partnership institutions. ● Initiate academic/clinical partnerships utilizing QSEN to improve health outcomes, which would include health disparities. ● Improve patient health outcomes through the integration of QSEN in academic/clinical partnerships.
Goal #2: Establish Florida QSEN Summit (Year 3–2016).	Outcomes: <ul style="list-style-type: none"> ● Nurses will practice at the full extent of their education and training, which includes quality and safety. ● Nurses will achieve higher levels of education and training through a QSEN training workshop initiative. ● The collaboration of stakeholders will uphold the Institute of Medicine (IOM) recommendations that effective workforce planning and policy-making require better data collection and an improved information infrastructure. ● Stakeholders will participate in the Florida QSEN Summit in order to review presentations of best QSEN practices from QSEN training workshop attendees. ● It is anticipated that participation in the Florida QSEN Summit will provide attendees and stakeholders with a better understanding of how QSEN integration enhances nursing education in terms of quality and safety.

Appendix B

Table 2
workshop participant expectations.

Workshop participant expectations:
1. Submission of registration form indicates that you have received support from your Academic/Clinical Nurse Leader (Dean/CNO level) to attend the workshop and commit to the following goals: <ul style="list-style-type: none"> a. Integrate QSEN competencies through regional Academic/Clinical partnership.

(continued on next page)

Table 2 (continued)

- b. Through Academic/Clinical partnerships, develop and implement best practices related to QSEN competencies for pre-licensure and practicing nurses across the education and practice continuum.
 - c. Develop an action and implementation plan to initiate academic/clinical partnerships focused on integrating quality safety education for nurses (QSEN) competencies to improve health outcomes and best practices for statewide and national dissemination.
 - d. Agree to attend the Year 3 Florida QSEN Summit and present Academic/Clinical Partnership best practices.
2. Agree to share best practices, presentations, and related information via the Florida QSEN Center website: <http://qsen.org/about-qsen/regional/florida-2/>
3. Agree to share your name and contact information with other workshop participants for networking.

Appendix C

Table 3
Workshop content topics.

Content topic	Key elements
Background and history of the QSEN competencies	<ol style="list-style-type: none"> 1. Issues of patient safety and medical errors 2. Need for new and different skill set 3. IOM emphasis on communication 4. IOM 2002 Report on the education of health professionals 5. The RWJF funding for the development and training of the QSEN competencies and nursing faculty to address preparation of future nurses with a focus on the QSEN Competencies KSAs (Knowledge, Skills, & Attitudes) 6. QSEN Institute Forums and Resources
Academic-clinical partnerships	<ol style="list-style-type: none"> 1. History of successful academic-clinical partnerships 2. Disconnect between academic and clinical partner integration of QSEN competencies and KSAs 3. Overview of the Florida Initiative to support academic-clinical partnership to bridge the competency gap between newly educated, licensed nurses and practicing nurses who had not been exposed to the competencies 4. Integration of QSEN competencies at the point of care for practicing nurses <ol style="list-style-type: none"> a. State level model b. Toolkit c. Pilot program that could be replicated in other states d. Goal – improve quality, safety, and health outcomes
The “So What” question & need for partnerships and QSEN	<ol style="list-style-type: none"> 1. Preventable deaths and harm to patients (IOM Report and Dr. James, 2013 Report) 2. Use of the Tenerife 1977 Airline Disaster (KLM Flight 4805 & Pan Am Flight 1736) to simulate the number of patients that are harmed or die from preventable harm <ol style="list-style-type: none"> a. All passengers aboard the KLM flight did not survive b. Only 61 passengers survived from the Pan Am Flight. c. Total of 583 people killed by preventable harm. <ol style="list-style-type: none"> i. Visualized an airline passenger flight with 300 passengers flying. ii. Next posted the equivalent of 400,000 deaths using Dr. James', 2013 report estimates of premature death and preventable patient harm – or 1333 airplanes. iii. Visualized that this is the equivalent to the number of our patients impacted each year. 3. The “So What” Question Answered = If we had 1333 planes crashing each year killing or harming > 400,000 passengers, would we ever get back on a plane? Would we be concerned and called to action? 4. Review of the high cost of clinical error or preventable harm/conditions
Deep dive into the QSEN competencies & KSAs	<ol style="list-style-type: none"> 1. Facilitators presented an overview of each competency and related KSAs using the provided toolkit materials, presentation, and discussions among academic-clinical partners <ol style="list-style-type: none"> a. Evidence-Based Practice (EBP) b. Patient-Centered Care (PCC) c. Informatics d. Safety e. Quality Improvement f. Teamwork & Collaboration
Building academic-clinical partnerships	<ol style="list-style-type: none"> 1. SWOT analyses for each academic-clinical partner team 2. Developed next steps and action plans <ol style="list-style-type: none"> a. Outlined key needs assessment metrics and how teams would intervene, implement, and evaluate success 3. Reviewed expectations

Appendix D

Table 4
QSEN Workshop – number of attendees.

QSEN Workshops
*Goal was four workshops with 50 attendees at each one.

QSEN Workshop	Date	Location	Number of Attendees
#1	August 28, 2014	North Florida – Academic Medical Center	55
#2	October 20, 2014	Southwest Florida – Community Hospital	21

(continued on next page)

Table 4 (continued)

QSEN Workshops
*Goal was four workshops with 50 attendees at each one.

QSEN Workshop	Date	Location	Number of Attendees
#3	January 23, 2015	Southeast Florida – Academic Institution	29
#4	April 10, 2015	Central Florida – Academic Institution	31
Total			136

Appendix E

Table 5
Reliability Table for the QSEN Academic-Clinical Partner Competency Assessment Questionnaire (ACPCAQ).

Scale	No. of Items	α
QSEN ACPCAQ	6	0.93

Appendix F

Figs. 1–7 Baseline QSEN Academic-Clinical Partner Competency Assessment Questionnaire (ACPCAQ).

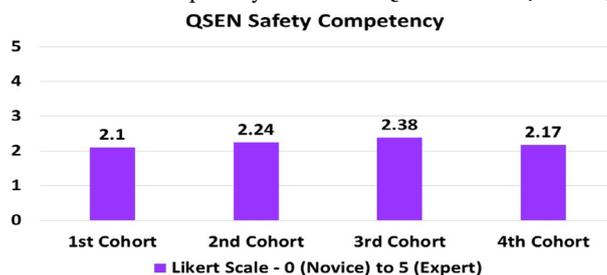


Fig. 1. QSEN safety competency cohort aggregate, pre-workshop mean scores (1 = Novice to 5 = Expert).

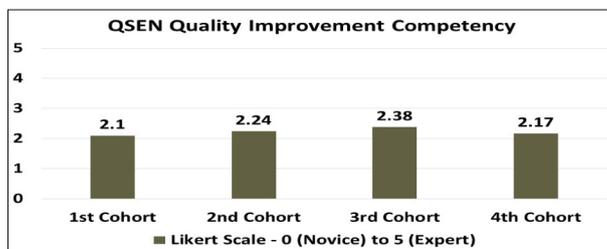


Fig. 2. QSEN quality competency cohort aggregate, pre-workshop mean scores (1 = Novice to 5 = Expert).

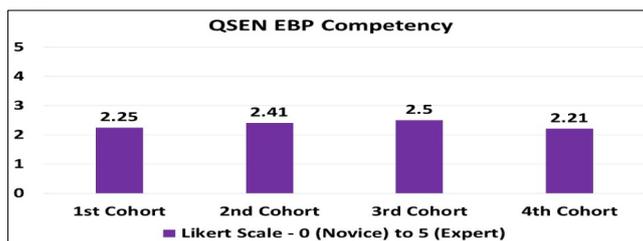


Fig. 3. QSEN evidence-based practice competency cohort aggregate, pre-workshop mean scores (1 = Novice to 5 = Expert).

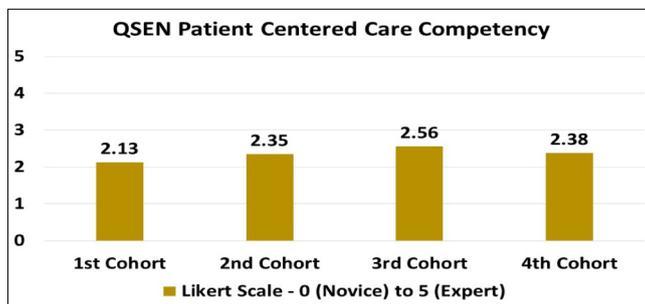


Fig. 4. QSEN patient-centered care competency cohort aggregate, pre-workshop mean scores (1 = Novice to 5 = Expert).

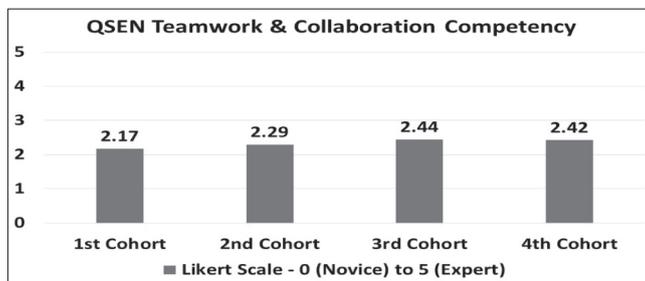


Fig. 5. QSEN patient-centered care competency cohort aggregate, pre-workshop mean scores (1 = Novice to 5 = Expert).

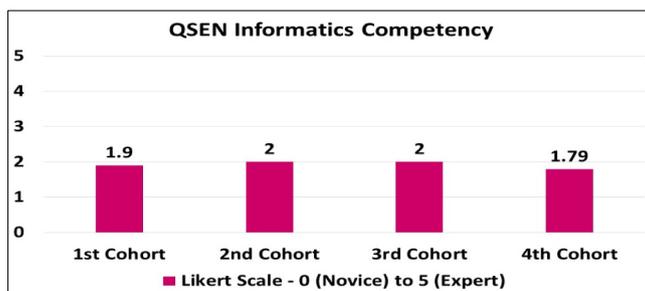


Fig. 6. QSEN informatics competency cohort aggregate, pre-workshop mean scores (1 = Novice to 5 = Expert).

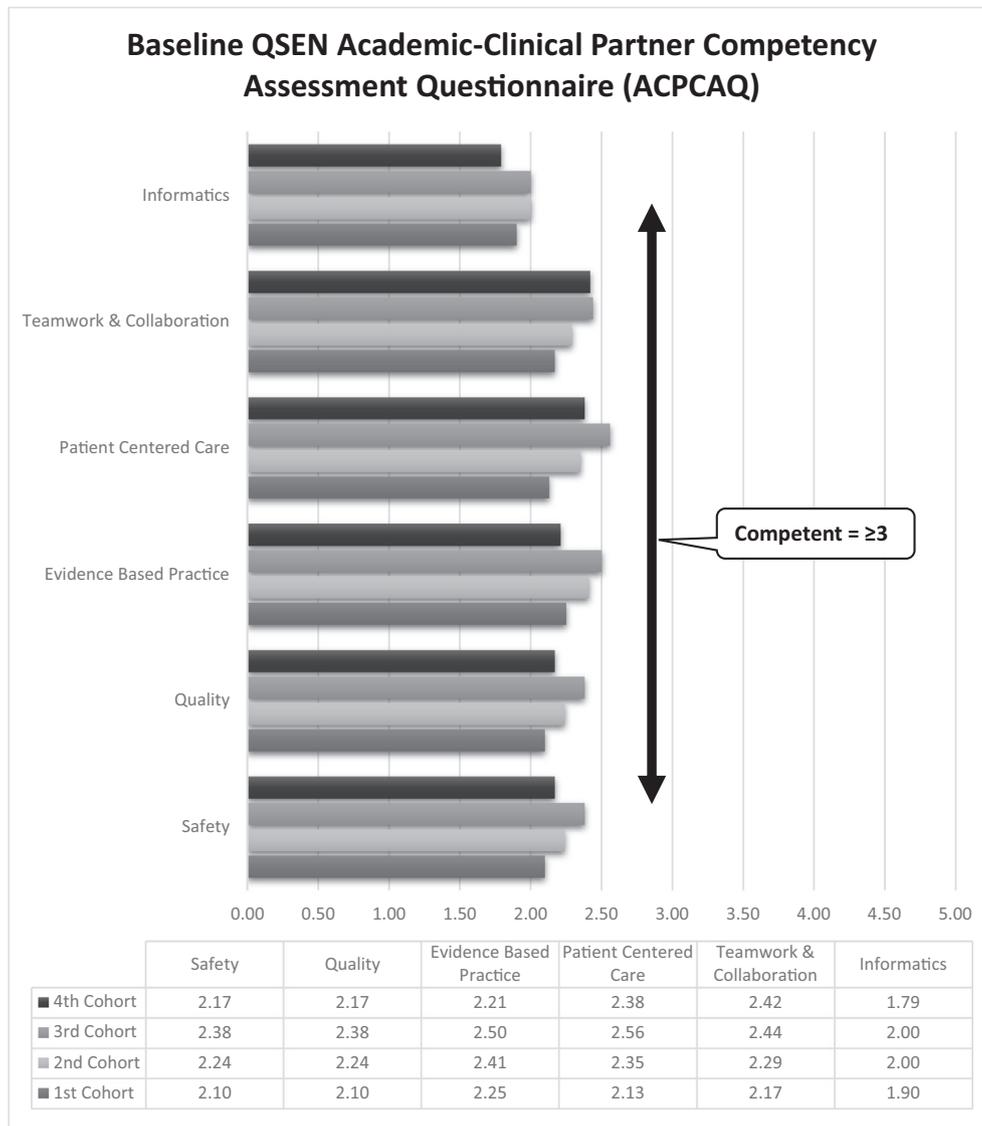


Fig. 7. QSEN Academic-Clinical Partner Competency Assessment Questionnaire (ACPCAQ), pre-workshop, mean scores (1 = Novice to 5 = Expert).

Appendix G

Table 6
2016 Florida QSEN Summit Presentations

- 2016 Florida QSEN Summit presentations
- 1. Improving safety attitudes in new graduating nurses
- 2. Empowering perceptions to arrest bullying and incivility in the nursing workplace
- 3. From books to bedside: partnering to bridge the gap on hospital quality and safety initiatives
- 4. A Partnership between a cancer alliance and a college
- 5. Integration of QSEN into the Baptist health system
- 6. Paying it forward – teamwork and collaboration in Action
- 7. Daytona State College - QSEN
- 8. Clinical integration of QSEN competencies: Sarasota Memorial Health Care System

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