2015

Reliability and Validity of a Tool Measuring Preceptor Evaluations of Competencies among New RN Graduates in a Transition-To-Practice Program

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2887 words, 14 pages, 1 table, 20 references

Abstract

Four transition-to-practice programs for new registered nurse (RN) graduates who had not yet found employment in nursing were based on Quality and Safety Education for Nurses (QSEN) competency knowledge, skills, and attitudes (KSAs). To support consistent evaluation of participants by preceptors, a 35-item tool was developed that uses a three-point scale to assess selected behaviors across all six QSEN competencies. The purpose of this report is to describe initial reliability and validity testing of the tool. It has good internal consistency with a Cronbach's alpha of 0.92. Six content experts in nursing education positively evaluated the face validity of the tool, and it discriminated between junior-level baccalaureate nursing students and nursing faculty who self-rated their competencies. Although it does not exhaustively reflect the QSEN KSAs, the tool requires approximately ten minutes for completion, providing a practical way to assess development of QSEN competencies among new graduates.

For newly graduated registered nurses (RNs), the transition from student to advanced beginner professional nurse is challenging. A pivotal 2010 Institute of Medicine (IOM) report on the future of nursing identified post-graduate residencies as one of eight recommendations for preparing nurses for effective professional practice (Institute of Medicine, 2010), and evidence is accumulating about the effectiveness of nursing residencies. In a 2012 review of 20 studies evaluating residency programs for new RN graduates, organizational outcomes, such as recruitment, retention, and turnover, were most frequently measured (Anderson, Hair, & Todero, 2012). The most frequently used tool employed in nursing residency evaluations was the Casey-Fink Graduate Nurse Experience Survey measuring self-perceived competence (Casey, Fink, Krugman, & Propst, 2004). Performance-based clinical competence was assessed by only three studies (Beecroft, Kunzman, & Krozek, 2001; Cleary, Matheson, & Happell, 2009; Herdrich & Lindsay, 2006), using instruments measuring professional autonomy (Schutzenhofer, 1987), nursing competencies (Wandelt & Stewart, 1975), and performance of nursing behaviors (Schwirian, 1978).

Based on the IOM competencies for nursing (Institute of Medicine, 2003), the Quality and Safety Education for Nurses (QSEN) initiative defined six safety and quality competencies and proposed knowledge, skills, and attitudes to be developed for each: patient-centered care, teamwork, evidence-based practice, quality improvement, safety, and informatics (Cronenwett et al., 2007). QSEN competencies are being broadly integrated into prelicensure curricula and are assuming increasing importance among inpatient nurse leaders (Barnsteiner et al., 2013; Berman, Johnson, & West, In press; Falls & Hensel, 2012). However, to the best of our knowledge, no psychometrically validated measurement tool exists for assessing the performance of new RN graduates related to QSEN competencies. The purpose of this report is to describe the

development and validation of a tool with which clinical preceptors can assess the performance of new RN graduates with respect to QSEN competencies.

Tool development

In 2010, four academic-practice partnerships in California offered transition-to-practice programs for new RN graduates who had not yet found employment in nursing (Berman et al., 2014; Jones-Bell et al., 2014; Wallace et al., 2014; West et al., 2014). Each partnership had the flexibility to design a program to best meet the needs of the clinical practice sites but all developed curricula based on the QSEN competencies (West et al., 2014). A tool congruent with the QSEN framework was needed to evaluate the effect of the program on participants' performance.

Clinical nursing leaders from three facilities collaborated to develop a tool to evaluate the performance of new graduate participants in terms of QSEN competencies. Over a period of several weeks, the workgroup translated QSEN knowledge, skills, and attitudes (KSAs) into discrete observable behaviors, adapting and expanding on a recently published assessment of new RN graduate proficiencies (Berkow, Virkstis, Stewart, & Conway, 2009). The tool was subsequently approved by the transition program's evaluation advisory committee. Table 1 displays the behaviors related to QSEN competencies included in the tool; the 36th item asks preceptors to evaluate the overall clinical competency of the new RN graduate. A four-point scale indicated the level of competency: 0 = not applicable, 1 = beginning competency, 2 = developing competency, and 3 = advanced competency.

Internal consistency

Cronbach's alpha was computed for the 36-item scale, using 193 preceptor assessments of new RN graduate competency completed at the start and end of the transition program. Cronbach's alpha was 0.92.

For the pre-program assessment, 135 preceptor evaluations were available; 105 were complete and included in the analysis. Of 3780 potential responses to individual items, 3615 (98.7%) were completed. Ten items were completed by all respondents, and a total of 34 were missing four or fewer responses. However, item #2 ("Complete understanding and interpretation of assessment data") and item #9 ("Establishes rapport with patient and family") lacked 10 and 12 responses, respectively. Item #9 was repeated under a different competency as item #18, and in that position, only three responses were lacking. In all, 98.7% of potential responses were completed.

For the post-program assessment, 123 preceptor evaluations were available; 88 were complete and included in the analysis. Four items were completed by all preceptors, and a total of 27 items were missing responses from four or fewer preceptors. Items #6 ("Complete understanding and interpretation of assessment data") and #25 ("Uses appropriate language and tone when resolving conflict") lacked five responses and item #4 ("Integrates knowledge of pathophysiology of patient conditions" lacked six responses. Two items (#3, "Able to anticipate risks related to assessment data" and #36, overall assessment of competency) lacked nine responses. Item #16 ("Locates, critically reviews and applies scientific evidence and medical literature") lacked ten responses, and item #22 ("Documents patient assessment data in complete and timely fashion") lacked 13 responses. In all, 96% of potential responses were completed.

Face validity

A request to evaluate face validity of the instrument and link to an online evaluation form was sent by one of the authors (SP) to six content experts, each of whom had demonstrated expertise in QSEN content as a designated trainer at their university or clinical facility and/or through peer-reviewed publications about QSEN-related content. In addition, each had experience working with pre-licensure students in clinical environments similar to those used in the transition program. Two content experts were unable to complete the face validity evaluation as requested due to other responsibilities, so four experts analyzed the instrument.

We provided experts with the following definitions for the QSEN competency areas (Cronenwett et al., 2007; QSEN Institute, 2014):

- Patient-centered care: Recognize the patient or designee as the source of control and full partner in providing compassionate and coordinated care based on respect for patient's preferences, values, and needs.
- Teamwork and collaboration: Function effectively within nursing and inter-professional teams, fostering open communication, mutual respect, and shared decision-making to achieve quality patient care.
- Evidence-based practice: Integrate best current evidence with clinical expertise and patient/family preferences and values for delivery of optimal health care.
- Quality improvement: Use data to monitor the outcomes of care processes and use improvement methods to design and test changes to continuously improve the quality and safety of health care systems.
- Safety: Minimizes risk of harm to patients and providers through both system effectiveness and individual performance.

- Informatics: Use information and technology to communicate, manage knowledge, mitigate error, and support decision-making.

We asked experts to answer several questions for each item:

1. Does the question clearly relate to one of the 6 QSEN competencies being evaluated?
2. In which QSEN competency content area does it fit BEST? (only one category)
3. Is the intent of the question clear?
4. Is the language of the question clear and unambiguous?
5. Is the question clear and unambiguous in its content?
6. Is the question written at an appropriate level for undergraduate nursing students?
7. Is the format of the question (eg, use of terms, specific situation cited, grammar) clear and understandable?
8. Do you suggest a change in the question format?

The experts unanimously agreed about the category to which each item belonged and offered comments about three items. With respect to the first item ("Conducts comprehensive psychosocial and physical health history that includes patient's perspective and considers cultural, spiritual, social considerations"), a reviewer noted that the descriptor "comprehensive" might lack precision but did not offer an alternative wording. With respect to the second item, the same reviewer wondered whether "complete understanding" was measurable and was concerned that preceptors' standards for the completeness of understanding might vary. Again, no alternative wording was suggested.

One reviewer was unsure whether item 16 was a reasonable expectation for a new RN graduate. She noted that, as an expert nurse, she was still trying to perfect the skill of locating,

reviewing, and applying scientific evidence and medical literature, but she did not recommend a change based on this observation. Similarly, all experts noted that item 13—"Communicates observations or concerns related to hazards to patients, families and the health care team and uses the organizational reporting system for errors"—represented activities that even experienced nurses often found difficult to perform. Although they did not suggest a change in the item, they noted that it represented an expectation of new RN graduate performance that was perhaps unrealistically high.

Three experts offered summative comments that the items had face validity for evaluation of QSEN competencies and were usable. They also noted that the tool did not exhaustively assess all QSEN pre-licensure KSAs (QSEN Institute, 2014), but its relative brevity enhanced its value.

Concurrent validity

The tool was also administered to 17 nursing faculty members with and without current clinical experience and 94 junior-level students in a traditional BSN program, who self-rated their performance on the items. The mean score for students was 2.23, with a range of 1.74 to 2.72 and a standard deviation (SD) of 0.29; the mean score for faculty was 2.86 (range, 1.86 to 3; SD, 0.27). The lowest score for students and faculty alike was # 35, 'uses clinical technologies (e.g., Smart Pumps, monitors). Among students, mean scores reflected high levels of self-rated developing competency (.≥ 2.5) on seven items (10, 20, 21, 24, 25, and 29), reflected lower levels of developing competency (2.02-2.47) on 22 items, and beginning competency (1.74-1.97) on six items. Among faculty, mean scores reflected advanced competency (3.0) on 23 items; high levels of developing competency on eight items, lower levels of developing competency on two items, and beginning competency on a single item.

DISCUSSION

The tool developed to assess competency of new RN graduates has good internal consistency and face validity, and discriminates between levels of nursing experience, as measured among students and faculty. Basic psychometric testing with pre-licensure students and nursing faculty members confirms that the tool can discriminate between various levels of self-assessed mastery of the included QSEN competencies. Approximately ten minutes was required for preceptors, students, and faculty to complete the tool.

Limitations to the assessment tool include its intended purpose. It was developed to provide feedback to new RN graduates participating in transition-to-practice programs, not to provide an exhaustive evaluation of all QSEN competencies. The face validity analysis confirms that the included items are valid, but the tool does not comprehensively address all aspects of the six QSEN competencies. Consequently, it can be used when comprehensive evaluation of all aspects of the QSEN competencies is not necessary. An additional limitation is the three-point scale, which contrasts with the five-point Likert scale used to assess the perceptions of nurse leaders of the proficiencies of new RN graduates by Berkow et al (2009). Although a three-point scale enabled rapid tool completion, it may have resulted in the loss of some information. Finally, our findings require validation in other populations and settings.

In summary, the assessment tool presented here is a quickly completed instrument that can be easily used in the clinical setting for purposes that include self-evaluation and peer/coach feedback. Selected behaviors fulfilling the six QSEN competencies provided a meaningful assessment of developing competencies among new RN graduates participating in a transition-to-practice program.

REFERENCES

Anderson, G., Hair, C., & Todero, C. (2012). Nurse residency programs: an evidence-based review of theory, process, and outcomes. *J Prof Nurs, 28*(4), 203-212.S8755-7223(11)00204-3 [pii] 10.1016/j.profnurs.2011.11.020

Barnsteiner, J., Disch, J., Johnson, J., McGuinn, K., Chappell, K., & Swartwout, E. (2013). Diffusing QSEN competencies across schools of nursing: the AACN/RWJF Faculty Development Institutes. *J Prof Nurs, 29*(2), 68-74.S8755-7223(12)00291-8 [pii] 10.1016/j.profnurs.2012.12.003

Beecroft, P. C., Kunzman, L., & Krozek, C. (2001). RN internship: outcomes of a one-year pilot program. *J Nurs Adm, 31*(12), 575-582

Berkow, S., Virkstis, K., Stewart, J., & Conway, L. (2009). Assessing new graduate nurse performance. *Nurse Educ, 34*(1), 17-22.10.1097/01.NNE.0000343405.90362.15

Berman, A., Beazley, B., Karshmer, J., Prion, S., Van, P., Wallace, J., & West, N. (2014). Competence gaps among unemployed new nursing graduates entering a community-based transition-to-practice program. *Nurse Educ, 39*(2), 56-61.10.1097/NNE.0000000000000018 00006223-201403000-00004 [pii]

Berman, A., Johnson, T., & West, N. (In press). New License, No Job: Nurse Leaders' Experience with Transition-to-Practice Programs for Unemployed New RN Graduates. *Nurse Lead*

Casey, K., Fink, R., Krugman, M., & Propst, J. (2004). The graduate nurse experience. *J Nurs Adm, 34*(6), 303-311.00005110-200406000-00010 [pii]

Cleary, M., Matheson, S., & Happell, B. (2009). Evaluation of a transition to practice programme for mental health nursing. *J Adv Nurs, 65*(4), 844-850.JAN4943 [pii]

10.1111/j.1365-2648.2008.04943.x

Cronenwett, L., Sherwood, G., Barnsteiner, J., Disch, J., Johnson, J., Mitchell, P., Sullivan, D. T., & Warren, J. (2007). Quality and Safety Education for Nurses. *Nurs Outlook, 55*(3), 122-131.S0029-6554(07)00062-0 [pii] 10.1016/j.outlook.2007.02.006

Falls, E., & Hensel, D. (2012). Characteristics that perinatal nurse managers desire in new nurse hires. *J Contin Educ Nurs, 43*(4), 182-187.10.3928/00220124-20111101-07

Herdrich, B., & Lindsay, A. (2006). Nurse residency programs: Redesigning the transition into practice. *J Nurses Staff Dev, 22*(2), 55-62; quiz 63-54.00124645-200603000-00003 [pii]

Institute of Medicine. (2003). *Health professions education: a bridge to Quality*. Washington, DC: National Academies Press.

Institute of Medicine. (2010). The future of nursing: leading change, advancing health. Retrieved from http://www.iom.edu/Reports/2010/The-Future-of-Nursing-Leading-Change-Advancing-Health.aspx

Jones-Bell, J., Karshmer, J., Berman, A., Prion, S., Van, P., Wallace, J., & West, N. (2014). Collaborative academic-practice transition program for new graduate RNs in community settings: lessons learned. *J Contin Educ Nurs, 45*(6), 259-264.10.3928/00220124-20140402-01

QSEN Institute. (2014). Pre-licensure KSAs. Retrieved from http://qsen.org/competencies/graduate-ksas/

Schutzenhofer, K. K. (1987). The measurement of professional autonomy. *J Prof Nurs, 3*(5), 278-283

Schwirian, P. M. (1978). Evaluating the performance of nurses: a multidimensional approach. *Nurs Res, 27*(6), 347-351

Wallace, J., Berman, A., Karshmer, J., Prion, S., Van, P., & West, N. (2014). Economic aspects of community-based, academic-practice transition programs for unemployed new nursing graduates. *J Nurs Prof Dev, In press.*

Wandelt, M., & Stewart, D. (1975). *Slater nursing competencies rating scale*. New York: Appleton-Century-Crofts.

West, N., Berman, A., Karshmer, J., Prion, S., Van, P., & Wallace, J. (2014). Preparing new nurse graduates for practice in multiple settings: a community-based academic-practice partnership model. *J Contin Educ Nurs, 45*(6), 252-256; quiz 257-258.10.3928/00220124-20140417-03