E-Mentoring in Public Health Nursing Practice

Louise C. Miller, PhD, RN, Susan W. Devaney, EdD, APRN, BC, Glenda L. Kelly, MSN, RN, and Alice F. Kuehn, PhD, RNC, FNP/GNP

Abstract

Attrition in the public health nursing work force combined with a lack of faculty to teach public health prompted development of a “long-distance” learning project. Practicing associate degree nurses enrolled in an online course in population-based practice worked with experienced public health nurse “e-mentors.” Student-mentor pairs worked through course assignments, shared public health nursing experiences, and problem-solved real-time public health issues. Nursing faculty served as coordinators for student learning and mentor support. Over 3 years, 38 student-mentor pairs participated in the project. Students reported they valued the expertise and guidance of their mentors. Likewise, mentors gained confidence in their practice and abilities to mentor. Issues related to distance learning and e-mentoring centered around use of technology and adequate time to communicate with one another. E-mentoring is a viable strategy to connect nurses to a learning, sharing environment while crossing the barriers of distance, agency isolation, and busy schedules.

Public health nursing faces unique work force challenges, including a significant number of aging and retiring nurses, wages below those of hospital-based nursing, and insufficient numbers of faculty qualified to teach population-based concepts. The Institute of Medicine (2003) has documented the need to increase work force capacity and competency as a response to recognized deficiencies in the public health system. Preparation in population-based concepts was identified as an educational priority. However, local agencies have been slow to incorporate the national shift in public health to a population-based focus, resulting in a practice environment lagging behind optimal standards of public health practice.

The public health nursing work force in Missouri serves a diverse rural-urban population in a patchwork of 114 different, autonomous public health agencies. The national standard requires that public health nurses practice from a population base; however, the majority of staff nurses in local public health agencies in Missouri have no formal educational preparation in population-based nursing practice. Currently in Missouri, 68% of public health nurses and 69% of school nurses are prepared at an associate degree or diploma level (Missouri Department of Health and Senior Services [MoDHSS], 2004).

The Missouri Department of Health, Council for Public Health Nursing (1999) identified competencies needed to practice population-based care and assessed nurses working in the public health system. The survey indicated significant gaps in knowledge of public health nursing competencies and documented the lack of preparation for population-based practice. The MoDHSS then developed the Public Health Nursing Workforce Development Plan, recognizing the need for a course in population-based practice and a partnership among practicing nurses to support learning through a men-
monitoring program. Priorities included a didactic course in population-based skills, enhancing the leadership ability of local agency nurses, increasing competencies in using technology, and providing opportunities to build relationships among nurses.

**ADDRESSING NURSES’ NEEDS TO LEARN POPULATION-BASED PRACTICE CONCEPTS**

Concerns identified by the MoDHSS led to a plan for upgrading population-based practice skills of unprepared public health nurses. The University of Missouri-Columbia Sinclair School of Nursing in partnership with the MoDHSS submitted a proposal to the Health Resources and Services Administration (HRSA) outlining both a population-based practice course for underprepared nurses and training for experienced nurses in leadership and mentoring skills. Didactic course work in concepts of population-based practice was delivered online, meeting the community and public health nursing requirement for baccalaureate education. At the same time, students were paired with experienced public health nurse “e-mentors” who were prepared at the level of baccalaureate or higher and employed in local public health agencies. Benefits to this design were twofold: practicing public health nurses were able to upgrade their formal education and receive college credit, and experienced public health nurses improved their leadership skills through formal leadership training that was followed by hands-on experiences of coaching and mentoring.

The population-based course was taught by faculty at the Sinclair School of Nursing over a 16-week semester using a traditional web-learning platform. The lesson format was text-based instruction with follow-up assignments, requiring students to post responses on a dedicated discussion board. Students completed a semester-long project in which they selected an agency-based problem to work on with the support of their mentors.

Adding a mentoring component beyond the traditional distance education model of teacher-student was critical to creating a broader learning community of public health nurses. Having a mentor has been shown to help provide a vision to the mentee, improve the mentee’s commitment to work, and motivate the mentee to become a mentor (Burgess, 2007; Haynor, 1994; Smith, McAllister, & Crawford, 2001). Mentors also benefited, showing professional growth with higher levels of achievement at work as well as a personal satisfaction (Burgess; Smith et al.). Similar preceptor-student experiences have been implemented in public health nursing and community-based practice. However, these models have primarily been on-site, face-to-face supervision and partnerships (Anderson, Richmond, & Stanhope, 2004; Brehaut, Turik, & Wade, 1998; Burns, Beauchesne, Ryan-Krause, & Sawin, 2006; Mallette, Loury, Engelke, & Andrews, 2005; Zahner, 2006). From the beginning of this project, the mentoring idea was designed to be long distance or “e-mentoring” and to promote cross-fertilization among geographically distant and diverse nurses around the state.

**CREATING AN E-LEARNING COMMUNITY OF NURSES**

The three-way learning model—student, mentor, and teacher—required thoughtful consideration of each role. Students were asked to commit to an online academic course. The combination of technology and a new learning modality were significant concerns to some students. Further, students had to negotiate two relationships: being assessed and graded by their teachers and interacting with their online mentors. Mentors were asked to formalize a role in which they may have had little or no experience or training. To legitimize the mentor role in this project, they had a title of “mentor” and were given administrative approval for designated time away from work to participate in the workshops. Nursing faculty at the school of nursing assumed the responsibilities of teaching students and mentoring mentors.

Introduction of an e-mentoring learning model was a new strategy to teach population-based practice. Therefore, to help guide the project, the grant staff collaborated with faculty in adult and higher education to ground the project in concepts of adult learning. Zachery’s (2002) work on the four phases of the mentoring process was used as a foundation to help mentor the mentors. In this research, mentoring is not product-outcome driven; instead, mentoring targets another’s learning and is concerned with the “acquisition of knowledge, the application in practice, and critical reflection” (Zachery, p. 27). Zachery’s first phase is preparation (i.e., finding the match between mentor and student to enable learning). In preparation, the mentor-mentee relationship may be a mismatch, in which case a different mentor needs to be selected. Negotiating the relationship (phase 2) is interactive, determining what the responsibilities are of both the mentor and the learner to the learning situation, who is accountable for what, what the measures of “success” will be, and how to bring the mentoring relationship to closure. Enabling is phase 3, in which the learning takes place and the relationship is carried out. Elements of trust, communication, sharing ideas, respect, and comfort are practiced as the process of mentoring a learner occurs. Finally, in phase 4, closure and
Exiting the relationship, the relationship is brought to a close, with a clear endpoint identified and exit strategy implemented. At closure, an assessment of the learning situation is completed, reflecting on both the positive and the negative aspects of the process and achievement of predetermined learning outcomes.

Mentoring has traditionally been a top-down, experience-driven approach. A newer model emphasizes an interdependent relationship between mentor and mentee, in which collaborative and reciprocal “co-learning” occurs (Darwin, 2000). As the mentor and mentee move through the mentoring experience, the mentor’s input fades over an unspecified time frame and is overtaken by the mentee’s self-directed learning. At this point, the mentor’s responsibility shifts from the early role of facilitator to providing help only when asked as the mentee practices doing work alone. The mentor’s final duties as coach are to assist the mentee in generalizing what has been learned for use in the future to become a self-directed learner (Brandt, Farmer, & Buckmaster, 1993). Zachery (2002) notes that mentors benefit from the mentoring experience by incorporating new perspectives into their practice; demonstrating improved leadership, coaching, and listening skills; and becoming more engaged in their work.

Because mentoring is actually about process rather than product, certain key elements need to be in place at the outset of a mentoring program. This includes commitment by both mentor and mentee to the work of the relationship that is grounded in mutual respect, trust, and comfort (Bierema & Merriam, 2002). In addition to the individuals’ commitments to the mentoring relationship, support of the organization is critical, giving permission for the mentoring interaction to occur on work time and allowing use of agency resources (Akin & Hilbun, 2007). The ability for the pair to develop “just in time” strategies to answer questions and solve problems by e-mail or telephone is essential to accomplishing the agreed-upon outcomes or work, which in turn, moves the relationship forward (Dahl, 2005).

In the current case, a web-based program for adult learners was being implemented. Although electronic communication technology has grown rapidly and globally, literature related to e-mentoring is limited. A working definition of e-mentoring is the “computer mediated, mutually beneficial relationship between a mentor and a protégé which provides learning, advising, encouraging, promoting, and modeling, that is often boundary-less, egalitarian, and qualitatively different than face-to-face mentoring” (Bierema & Merriam, 2002, p. 214). Unlike web-based instruction, e-mentoring is sharing information with the goal of mentee growth. The virtual nature of the e-mentored relationship allows online conversations that may not take place in face-to-face relationships and give a degree of objectivity to the relationship. E-mentoring offers flexibility within a work setting, allowing the mentor and mentee to blend routine work and mentoring during the workday (Bierema & Merriam). However, there are risks associated with e-mentoring programs. A loose, unstructured relationship and insufficient administrative support for the mentoring commitment can lead to mentoring problems early on (Akin & Hilbun, 2007). Miscommunication is a common issue. More serious is the opportunity for disengagement by either the mentor or the mentee, often resulting in forfeiting the relationship (Bierema & Merriam).

Distance education and e-teaching in nursing are relatively new topics in the nursing literature (Neuman, 2006; Oehlkers & Gibson, 2001; Phillips, 2006). Similar to the model used in this project, e-mentoring by case managers has been recommended as an alternative to effectively mentor undergraduate nursing students in clinical skills (Neuman). Nursing literature has typically focused on attributes of a positive mentoring relationship and its benefits to individual professional development within the organization (Hayes & Scott, 2007; Heller et al., 2004); essentials of novice-expert models for student clinical experiences and new staff orientation (Andrews & Wallis, 1999; Butler & Felts, 2006); and use of mentoring for nurse researchers (Byrne & Keefe, 2002) and nurse educators (National League for Nursing, 2006). Integrating innovative distance learning strategies to teach nursing concepts will be valuable as nursing grapples with the need to educate more nurses with fewer resources.

MENTOR LEADERSHIP TRAINING AND E-MENTORING PREPARATION

Nurses with leadership potential were nominated for participation in the mentor program by the public health nursing liaison at the MoDHSS. Participants had to obtain approval to participate from their agency administrators to ensure support by both the mentor and the organization. Each completed a written application identifying reasons for interest in the mentor program, reflecting on one’s own practice and the anticipated role of mentor.

The mentor course was a 3-day, face-to-face training, allowing mentors to create a supportive cohort and enhance their leadership skills. At the onset, each mentor had the opportunity to express feelings related to the upcoming mentoring experience. Primary concerns were “not knowing enough” and “not being able to answer the mentee’s questions.” One mentor articulated the pros...
and cons: “I struggle with the fear and apprehension of not knowing all the answers but am excited about this at the same time.” Having adequate time to sustain an ongoing relationship with the mentee was consistently identified as a major concern. At the same time, mentors shared their expectations for personal growth in leadership and mentoring skills: “I am confident that I can provide support and leadership to my mentee and that I, too, will learn from this.” In addition, they expressed a renewed enthusiasm for learning and for public health nursing, as explained by one mentor: “I am excited about a new challenge—increasing my own knowledge while supporting new knowledge with my mentee.”

To address these concerns, mentors participated in role-playing exercises followed by a debriefing. Adult learning strategies were demonstrated using situational applications. Playing both mentor and learner roles provided the opportunity to experience issues of learning, such as monitoring learner competence and improving learner commitment (Pratt, 1988). The role of mentor as coach, facilitator, and critical friend (Costa & Kallick, 1993) was carefully differentiated from the role of mentor as teacher, preceptor, and evaluator (Smith et al., 2001). In role-playing scenarios, mentors were asked to resolve situations in which student-mentor communication was problematic and develop strategies to manage the problem. Issues were discussed as a group (e.g., knowing the answers was not as important as knowing how to ask the right questions, fears about finding adequate time to mentor, and negotiating the parameters of the relationship). Mentors explored personal preexisting assumptions about teaching-learning, expectations, and more correct “public health nursing practice and later shared this with their mentees (Brookfield, 1995).

E-MENTORING STUDENTS IN POPULATION-BASED PUBLIC HEALTH NURSING PRACTICE

Pairing mentors and students was based on common interests and expectations, and diversity of nursing experiences. Mentor-mentee matches were geographically long distance (i.e., there were no intra-agency mentor-student combinations). Mentors and students had the opportunity for personal interaction prior to the start of the online course. Expectations for both were outlined, and each pair had some time to agree on how and when they would communicate, the role of the mentor as the coach, the student’s professional and personal goals, and their combined public health nursing experiences. During the course, students and mentors were connected through a dedicated website with a common discussion board. Thus, a mentor could stay connected with the entire group of students and other mentors.

Several issues surfaced over the semester. As expected, physical separation was a barrier for some. Because e-mail between student and mentor was the main communication method, delays in answering e-mails by the mentors left students feeling abandoned. Students not engaged in the course distanced themselves electronically and simply did not respond to the mentor. When the student was motivated and maintained a close, working relationship with the mentor, the mentor felt rewarded and they developed a professional and personal bond. This led to student success in the course. In the case of poorly performing students, mentors expressed frustration and questioned their abilities to mentor. At the same time, some mentors were also uninvolved, and simply dropped out of online communications. Students then turned to nursing faculty for more guidance.

RESULTS OF E-MENTORING STUDENTS IN POPULATION-BASED PUBLIC HEALTH NURSING PRACTICE

What Students Gained

The course had a completion rate of 92% (35 of 38 students). Seven continued to complete the bachelor of science in nursing degree. Four are now completing the master of science in nursing. Four students who completed the first session became mentors to students in later sessions. Several students became active on the Council for Public Health Nursing, a statewide leadership group.

Learning population-based practice bolstered confidence in existing practice. In some cases, completing this course provided the impetus to take on expanded roles at work, including new staff mentoring and leadership in multidisciplinary teams and community coalitions. Agency supervisors observed a shift in practice from individual to population focus, recognizing newly acquired skills in problem solving, coordinating, and identifying best practices. Supervisors also identified areas of advocacy or political action and conflict resolution or negotiation skills as those that needed more development.

What Mentors Gained

Mentors reported they redefined their perception of mentoring. The emphasis on knowing course content and student assignments shifted to understanding the role of the mentor as coach. This is consistent with the literature that speaks to the evolutionary nature of a mentoring experience (Brandt et al., 1993; Zachery, 2002) and
the co-learning that occurred (Darwin, 2000). Two mentors reflected on their shared “win-win” experiences: “I enjoyed the relationship that developed and the support and advice we can give to each other.” “I love using the knowledge I gained through my experience and school to broaden my horizons.”

Mentors were contacted 3 to 4 years after their mentoring experiences. Of the 38 mentors, 17 were located and completed an online survey (Table). Responses were compared to those on surveys completed prior to the leadership class and mentoring experience. Data indicated improvement in skills and knowledge of population-based practice, improvement in confidence to mentor, and continued mentoring of other public health nurses. Some mentors took on new work roles; were promoted to leadership, supervisory, or administrative positions; or moved to specialty areas of practice. A few became adjunct faculty at nursing schools or assumed leadership roles in community programs.

**ISSUES RELATED TO E-MENTORING**

Follow-up data from students reaffirmed issues identified in the literature related to e-mentoring. The most significant problem was delayed or no response from the mentors. In the current program, students then turned to the teaching faculty for guidance and support. Mentors cited long-distance communication and limited time as problematic. In addition, mentors were not always clear about how to help the students, particularly those who were having difficulty with course content or assignments. Both students and mentors reported in follow-up interviews the value of the initial face-to-face contact to bring about dynamic discussion of nursing issues.

**BENEFITS OF THE MENTORING PROGRAM FOR PUBLIC HEALTH NURSING IN MISSOURI**

E-mentoring crosses agency and geographical boundaries, allowing for mentoring relationships that might otherwise not be feasible. It opens up possibilities for learning and sharing not available in traditional face-to-face mentoring programs. Public health and school nurses in rural and urban areas can share information and intervention strategies. Using technology, nurses who were separated by hundreds of miles were successful at completing course-assigned projects, contributing ideas to solve agency problems, and thinking creatively about what public health and school nurses should be doing in Missouri.

It is obvious that a commitment to both one’s own professional nursing practice as well as public health nursing as a whole is essential to a program such as this. However, operationalizing it can be challenging. Setting expectations early, including how and when mentors and mentees will communicate, is key. Following through on those communication strategies requires persistence and time.

An important goal in the project was to strengthen the public health nursing network in Missouri. Although mentors and students had little face-to-face time, most developed effective long-distance working relationships. They used technology to form relationships, strategize, and solve problems. After four cycles of the program,
key points

E-Mentoring

1 Changes in the public health nursing work force are creating a crisis in practice.

2 Many public health nurses who are associate degree-prepared require additional formal education in concepts of population-based practice.

3 Experienced public health nurses can function as long-distance “e-mentors” to colleagues enrolled in a population-based concepts course.

73 public health nurses across 30 local agencies and the MoDHSS became a core public health nursing community that can set and promote a public health nursing agenda. As nursing resources diminish and there is less opportunity for face-to-face learning and networking, e-mentoring is a viable method for maximizing resources and using collective expertise.

REFERENCES