

# Differentiating Scopes of Practice in Nursing Homes: Collaborating for Care

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Hospitalizations of nursing home residents are costly and adversely affect the health of already vulnerable residents, and reducing avoidable hospitalizations has been identified as a priority quality and safety outcome by the U.S. government. However, existing interventions to reduce hospitalizations do not account for differences in scopes of practice among licensed nursing staff. This article describes the development of an educational innovation for nursing home staff members to learn to collaborate in ways that differentiate registered nurse and licensed practical/vocational nurse scopes of practice and strengthen connections among licensed and unlicensed nurses to improve detection and management of conditions associated with avoidable hospitalizations. The innovation was developed using situated learning theory and facilitated unfolding case discussions, reflecting the actual care environment. Evaluation data indicated the feasibility of this approach to staff education.

**H**ospitalizations of nursing home residents are costly and adversely affect the health of already vulnerable residents. Annually, 25% of long- and short-stay nursing home residents are hospitalized at least once. Reducing avoidable hospitalizations is a priority quality and safety outcome of the U.S. government (U.S. Department of Health and Human Services [HHS], 2013a).

Although systems-level interventions are underway to reduce avoidable hospitalizations (Ouslander, Bonner, Herndon, & Shutes, 2014), these interventions are often implemented without addressing gaps in nursing practice, specifically the core elements of assessment, care planning, supervision, and delegation. For example, existing decision support tools designed to reduce avoidable hospitalizations do not meaningfully differentiate between the contributions of registered nurses (RNs) and licensed practical/vocational nurses (LPNs) in assessment and care planning, despite the fact Nurse Practice Acts indicate that only RNs are educated and licensed to conduct comprehensive assessments (Corazzini et al., 2013c). This lack of differentiation might reinforce using RNs and LPNs interchangeably, a common practice in nursing homes as suggested in a recent survey (Mueller, Anderson, McConnell, & Corazzini, 2012). Furthermore, research findings show that failure to differentiate between RN and LPN scopes of practice is related to poorer-quality nursing home care (Corazzini et al., 2013b; Corazzini et al., 2013c). Not surprisingly, a recent U.S. Office of the Inspector General report notes widespread problems in care planning and assessment in nursing homes: 37% of Medicare skilled nursing facility resident stays in a recent, nationally representative sample had care plans that did not meet regulations (HHS, 2013b).

Interventions that shape how scopes of practice are enacted, therefore, can transform the capacity of nursing home staff to imple-

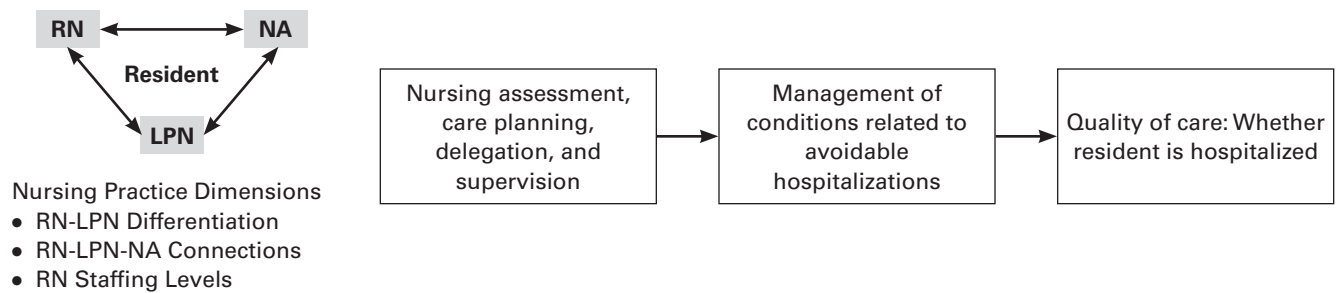
ment decision support tools and quality improvement programs designed to reduce residents' risk of hospitalization. Empirical evidence indicates that the manner in which nursing practice occurs in a nursing home affects the prevention of avoidable hospitalizations and the implementation of quality improvement programs in general (Graverholt, Forsetlund, & Jamtvedt, 2014; Masso, McCarthy, & Kitson, 2014; Ouslander et al., 2010). Additionally, research demonstrates variability in how nurse assessment, care planning, delegation, and supervision occur among RNs and LPNs, affecting a variety of resident outcomes, including medication safety, pain management, and Centers for Medicare & Medicaid Services (CMS) quality measures (Corazzini et al., 2013c; Corazzini et al., 2013d; Vogelsmeier, Scott-Cawiezell, & Pepper, 2011).

Studies focused on clinical microsystems (small groups of nursing home staff members that interact at the point of care) show these microsystems can differ significantly in quality and the differences are not fully captured in facility-level quality (Estabrooks et al., 2011; Mohr, Batalden, & Barach, 2004). This research suggests that efforts to improve quality and care outcomes should focus on these smaller clinical microsystems. Key members of the microsystem include unit-level teams of RNs, LPNs, and nursing assistants (NAs). Therefore, to reduce avoidable hospitalizations, we developed an educational innovation so these teams can learn to accomplish care in ways that more effectively use the scopes of practice of RNs and LPNs to achieve a higher capacity for quality. Drawing on our past empirical work (Corazzini et al., 2013b), we created the Practical nurse, Registered nurse, and Aide Collaborative Team In CarE (PRACTICE) intervention, an educational innovation designed to help RNs, LPNs, and NAs learn how to differentiate RN and LPN contributions to assessment and care planning and strengthen

FIGURE 1

## Conceptual Model of Impact of Educational Innovation on Quality of Care

### Clinical Microsystem of Care



Note. RN = registered nurse; NA = nursing assistant; LPN = licensed practical/vocational nurse.

the quality of connections among all nursing staff for assessing, care planning, delegating, and supervising. We focused on managing four common conditions related to avoidable hospitalizations: diabetes, congestive heart failure, urinary tract infections, and aspiration pneumonitis (HHS, 2013a). The purpose of this article is to describe the development of a theory-based educational innovation and its implementation in three nursing homes in North Carolina.

## Conceptual and Theoretical Basis of the Innovation

Figure 1 depicts the conceptual model that supports the content and learning goals of the educational innovation. Nursing staff members providing care on units learn how to collaboratively assess, plan care, delegate, and supervise care of residents with diabetes, congestive heart failure, urinary tract infections, and aspiration pneumonitis, using behaviors consistent with our empirically derived model of enacted nursing practice associated with a capacity for higher quality care. The model's key components are differentiating between the roles of RNs and LPNs in practice, having multiple connections among all nursing staff members, and ensuring an adequate RN presence in the nursing home (Corazzini et al., 2013b).

Figure 2 depicts the theoretical framework for the innovation. We used situated learning theory (Lave & Wenger, 1991) to facilitate learning of these new behaviors. RNs, LPNs, and NAs were presented a detailed case of a resident, using an unfolding case study approach (Day, 2011). The facilitator divided a case describing a resident's care over time into a series of sequential snapshots, revealing one at a time and eliciting discussion between snapshots. At each time point, learners gained new or additional information or learned what was happening from a different staff member's perspective. This process allowed learners to imagine that they were in the role of the staff member, ask questions, determine which steps could next be taken, and consider potential outcomes of those steps. Learners expanded their understanding by sharing their knowledge or ideas with other group members, and they were guided by peers and the facilitator to explore new knowledge or behaviors that align

with the conceptual model of nursing practice. (See Figure 1.) Table 1 provides an excerpt from a case about a resident with a urinary tract infection and illustrates how the facilitator guided the discussion to practice congruent with the conceptual model and best practice.

This learning format shifts the traditional role of an instructor from simply transferring information to the role of a facilitator who builds on the learners' knowledge and ideas, positively reinforcing what matches the conceptual model and best practice and facilitating exploration of new ways of thinking or new knowledge for what does not. Rather than trying to fill learners with new information, the facilitator attempts to understand how participants are thinking and builds on the best of what they are already doing by helping them adjust their perceptions, sometimes only slightly, to see their practice in a new way. Ideally, at the end of an unfolding case study session, learners recognize that a different outcome can be created with modest changes in practice. By working through the case study in groups of RNs, LPNs, and NAs who normally work together, learners develop a new, shared understanding of how to accomplish new outcomes as a team with the capacity to begin to shift the practice narrative (Benner, Kyriakidis, & Stannard, 2011) and continue to share successful strategies with peers beyond the classroom.

Using case study narratives is an ideal way to meet the principles of situated learning theory (Lave & Wenger, 1991), whereby thinking and learning are dependent on the social contexts in which they occur. Drawing on pragmatism and phenomenology (Dewey, 1976; Heidegger, 2010; Lave, 1997; Lave & Wenger, 1991; Merleau-Ponty, 2012; Vygotsky, 1986; Wittgenstein, 1997), proponents of situated cognition hold that thinking is not an isolated function of an individual mind, but a process in which the mind is engaged with a social environment and involved in a particular context. Building on situated cognition, situated learning asserts that the most effective and sustained learning is the learning that happens in meaningful contexts (Lave, 1997; Lave & Wenger, 1991).

For Lave and Wenger (1991), social engagement is the primary source of learning, and the ease with which adults acquire and use knowledge improves when the learning environment reflects the social context in which they will use the knowledge. (Lave, 1988).

Designing this learning innovation with cases from nursing home practice is a way to situate staff in a meaningful and familiar context while they gain new knowledge or skills that they will use in practice. Asking staff members to become involved in and think about cases and to discuss their ideas with coworkers in a social context that reflects the practice environment preserves something essential that is lost when theoretical content is taught as decontextualized, third-person observation and each staff member is only a receiver of information (Benner, Sutphen, Leonard, & Day, 2009).

## Development and Implementation of the Innovation

The innovation was conducted as a continuing education series in three North Carolina nursing homes in the same corporation between April and June 2014. The corporation selected the nursing homes based on internally identified criteria; homes were diverse in size, urban status, and CMS quality measures. Descriptive details are not provided here because the facilities would be identifiable, breaching confidentiality. The director of nursing (DON) in each nursing home invited participants, who included staff members from multiple units and shifts. Staff members represented all nursing licensure levels, including RNs, LPNs, and NAs. Also attending were RNs and LPNs serving in administrative leadership roles, including DONs, assistant DONs, staff development coordinators, and quality improvement nurses.

### Sessions

The training series was conducted in four, 2-hour learning sessions over a 9-week period. The first and second sessions were conducted in weeks 1 and 3, and the third and fourth sessions were conducted in weeks 7 and 9. Each session was structured around a case study focused on one resident's clinical condition related to hospitalizations: diabetes (session 1), congestive heart failure (session 2), urinary tract infection (session 3), and aspiration pneumonitis (session 4). The lead faculty facilitator conducted one on-site observation in each nursing home between the second and third sessions for the purpose of interacting with staff members and providing an opportunity for one-on-one coaching.

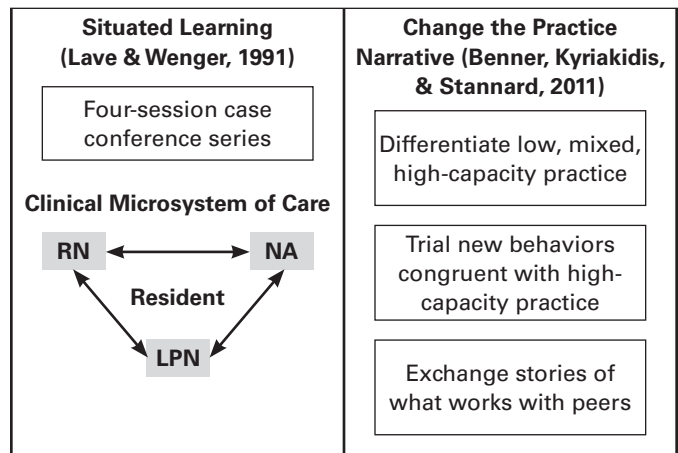
### Case Studies

Case studies were constructed in several steps before the first learning session. First, we conducted three group interviews (Denzin & Lincoln, 2005) of RNs, LPNs, and NAs, respectively, in each of the three nursing homes. We used this technique to elicit narratives of residents who had been hospitalized or for whom hospitalization had been avoided. Narratives were abstracted to construct 86 resident stories.

We coded the stories for precipitating clinical conditions; many stories shared the same precipitating clinical condition. We sorted our list of clinical condition codes by frequency, and compared the distribution with nationally available data of clinical conditions

FIGURE 2

## Theoretical Framework of Participant Learning in Educational Innovation



Note. RN = registered nurse; NA = nursing assistant; LPN = licensed practical/vocational nurse.

related to resident hospitalizations (HHS, 2013a). Through this process, we found that the most frequent conditions identified in the stories matched the most frequent conditions associated with hospitalizations nationally. We selected the clinical foci for our case studies from these most frequent conditions, increasing the generalizability of the case studies to other nursing homes.

Then, we constructed the case studies using composite, anonymized content from the stories, integrating the nursing practice dimensions (see Figure 1) and clinical practice guidelines ([www.hartfordign.org/practice/consultgeri](http://www.hartfordign.org/practice/consultgeri)). The case studies for sessions 1 and 2 included three iterations of a case, representing successively greater alignment with a high capacity for quality nursing practice, including a clear differentiation between RNs and LPNs; strong connections among RNs, LPNs, and NAs; and adequate RN presence in the nursing home. After testing sessions 1 and 2, we determined that we could simply use the high-capacity practice pattern and develop the unfolding content using facilitator probes that would guide participants. Each case study addressed the roles of the RN, LPN, and NA.

### Delivery of the Sessions

The three sites were connected via real-time video conferencing to allow concurrent training at all sites and to encourage cross-site interaction. The lead faculty member rotated to each of the sites; additional team members were at the other two sites to ensure that all nursing homes had on-site facilitators. A total of 29 staff members (12 RNs, 6 LPNs, and 11 NAs) participated, and 23 (80%) attended at least three of the four sessions. Participants were lost to participation because sometimes they could not attend or were called out of the learning session to address care issues with residents.

TABLE 1

**Sample Crosswalk of Unfolding Case Study Approach Mapped to Conceptual Model**

Excerpt From Case Study	Discussion Question for Participants	Instructor Key Points	Nursing Practice Dimension
NA: You help Mr. X into a chair and set him up with his breakfast tray. When you come back to check on him, you notice Mr. X has urinated in the chair and the urine smells foul. He has not eaten any of his breakfast and seems to be asleep in the chair.	What do you do next? Should you interrupt the LPN who is passing meds? How urgent is the information? Is it acceptable to enter the information into the computer and wait for an alert?	<ul style="list-style-type: none"> <li>• Wake up Mr. X and return him to bed.</li> <li>• Find the LPN on the hall to report the change in Mr. X; there may be some debate about whether RN involvement is necessary at this point.</li> <li>• In whatever form, the information should include an emphasis on the change in behavior.</li> </ul>	<ul style="list-style-type: none"> <li>• NA-LPN connections</li> <li>• RN-LPN connections</li> <li>• RN-LPN differentiation</li> <li>• Adequate RN presence</li> </ul>
LPN: When you finally get to see Mr. X, you find him lethargic with a temperature of 103.2° F (39.5° C). His other vital signs are stable.	Which information will you communicate to the RN and how? How do you want the RN to respond? What will the RN be able to add to the assessment that the LPN does not?	<ul style="list-style-type: none"> <li>• Incontinence episode, foul odor, mental status change, concern that patient has a UTI.</li> <li>• LPN should ask RN to come see Mr. X right away.</li> <li>• This is a place to explore the interchangeability issues.</li> </ul>	<ul style="list-style-type: none"> <li>• RN-LPN connections</li> <li>• RN-LPN connections</li> <li>• Adequate RN presence</li> <li>• RN-LPN differentiation</li> </ul>
<i>Note.</i> LPN = licensed practical/vocational nurse; NA = nursing assistant; RN = registered nurse; UTI = urinary tract infection.			

In general, staff members did not know anyone from other nursing homes and had not previously attended training together. Through their participation, each facility was able to identify its strengths and recognize the challenges common to all facilities. In some instances, participant responses to the unfolding case differed greatly, which led to interesting discussions and further development of ideas. Often, points shared were received with general agreement among the staff members of all facilities. The real-time video conferencing presented challenges of engaging all facilities while maintaining presentation structure and order. As the training series evolved, we became more effective at managing the video-conferencing technology.

### Evaluation of the Innovation

We evaluated the series using a nonexperimental, multimethod descriptive design that included a self-administered questionnaire before and after the series and an analysis of video recordings of session 4. We analyzed the survey data to evaluate the alignment of participants' perceptions of practice with the theoretical framework and coded the videotape of session 4 to evaluate whether the delivery of the series addressed the components of the theoretical framework.

The questionnaire included close-ended and open-ended items. Close-ended items covered reasons for avoidable hospitalizations, self-efficacy to prevent avoidable hospitalizations, nursing practice patterns in the nursing home, and the degree to which nurs-

ing staff learn about care from one another. The postseries questionnaire also included open-ended items asking participants to describe what they aimed to change in their practice. Of the 29 participants, 24 completed the preseries questionnaire, and only 16 completed the postseries questionnaire; fewer LPN and NA participants completed the postseries questionnaire. Therefore, no statistical analyses of change were conducted.

### Reasons for Avoidable Hospitalizations

Participants rated each of eight potential reasons for hospitalization identified as contributing to avoidable hospitalizations (Lamb, Tappen, Diaz, Herndon, & Ouslander, 2011), such as the family or resident insisting on a transfer or the primary care provider insisting on a transfer. Two of the reasons related to how RNs, LPNs, and NAs practice as a clinical microsystem, including missing the opportunity to prevent a transfer and having a gap in skill or knowledge. Participants rated each reason based on the frequency with which it affected hospitalizations in their nursing home.

Before the series, two nursing homes identified missed opportunity to prevent a transfer as among the top four reasons. After the series, all three nursing homes identified missed opportunity to prevent a transfer among the top four reasons, and two nursing homes identified a gap in skill or knowledge among the top four reasons. Responses, therefore, suggest alignment with the unfolding case study approach, whereby participants explore alternative approaches to practice and compare what each choice may yield as well

as ask questions about missing knowledge or critical information. Self-recognition of these important levers for practice change would, therefore, indicate readiness for participants' clinical application of what was learned during the sessions.

### **Self-Efficacy to Prevent Avoidable Hospitalizations**

All participants reported being either "very confident" or "somewhat confident" in their ability to prevent avoidable hospitalizations both before and after the series. This finding also aligns with the unfolding case study approach of situated learning, whereby the facilitator builds on what participants are already doing well in practice. Rather than assume staff members are neither knowledgeable nor confident, the instructor leverages embedded expertise to promote sharing and develop a community of practice.

### **Nursing Practice Patterns**

Participants completed the perceptions of nursing practice scale (Corazzini et al., 2013a) to describe perceived level of differentiation between RNs and LPNs in their nursing homes as well as the degree to which RNs and LPNs effectively collaborate. The subscales indicated overall low levels of differentiation and collaboration between RNs and LPNs before the series. Examples of items included, "RNs and LPNs differ in conducting admissions assessments" and "RNs build on LPN contributions to assessment." Participants completing the nursing practice scale after the series reported higher mean levels of differentiation and collaboration (mean summary scale score increases from 2.59 to 2.66 and from 3.04 to 3.18 on a 4-point Likert scale, respectively). Although we are unable to statistically test for differences, the data suggest a picture of clear alignment with the theoretical framework of the innovation with trends that indicate changes in the targeted dimensions of nursing practice.

### **Degree to Which Staff Members Learn From One Another**

Staff members completed the reciprocal learning scale (Leykum et al., 2011). Mean participant responses before and after the series suggest moderate levels of learning through peer interactions. The summary scale score before the series was 3.17, and after the series, the score was 2.75 on a 5-point Likert scale. As with the nursing practice patterns, we cannot empirically test for differences, but the results indicate a conceptual fit with the educational innovation's structured process for developing productive learning through interactions in a practice community.

### **What Participants Aim to Change in Practice**

Eleven participants completing the questionnaire after the series provided responses to the open-ended question, "What did you learn from this program that you will put into practice in your nursing home?" Responses were consistent with our theoretical framework of situated learning and changing the practice narrative.

Participants described multiple strategies to foster higher-capacity nursing practice, including strategies related to RN-LPN differentiation, such as having "the RN and LPN working together

more." An LPN participant aims for "more RN involvement during resident crises." Strategies described stronger RN-LPN-NA connections through greater communication and teamwork among all members of the nursing care team, for example, "the need to foster better communication among aides and nurses." An NA participant aims to "keep on working as a team." Comments also related to increasing the presence of RNs on the units; one RN participant aims to "get more involved." Finally, responses reflected the move to continue to critically evaluate how practice takes place, interacting with peers to identify what works and what may need to be changed, such as "question all aspects of our interventions" [RN participant] and "discuss[ing] . . . with staff ongoing care of the resident to improve the level of care" [LPN participant].

### **Fidelity of Delivery to the Theory**

The final session was video recorded and reviewed for delivery of the session congruent with the theoretical framework by two team members who were not part of the case study development team. We aimed to evaluate whether facilitators guided discussions to help participants consider how to move towards high-capacity nursing practice. Also, we aimed to evaluate whether participants were relating case study content to their daily practice (situated learning) and whether participants were interacting with peers to seek clarification and learn new care strategies (changing the practice narrative).

We began by generating a check sheet with rows denoting categories of target behaviors (Martin & Bateson, 2007). The video was then watched independently by each of the two team members who marked observed behaviors on the check sheet. Ratings by the two team members were then reviewed for interobserver reliability and discussed to resolve points of disagreement.

### **Facilitator Behaviors**

The instructor was observed implementing the unfolding case study approach for situated learning congruent with our theoretical framework. At all three sites, the facilitators positively reinforced clinical strategies that were consistent with current care standards, while correcting clinical decision making that may have been unsafe and clarifying clinical information. The facilitators prompted participants to figure out how they could bring all nursing staff team members to the assessment, especially RNs who might not be currently on the unit and NAs who may be overlooked. The facilitators also prompted participants to figure out what the RN could add to the specific situation and how to improve the collaboration of RNs with LPNs for comprehensive assessment and care planning, thereby learning to differentiate between the scopes of practice of RNs and LPNs.

### **Participant Behaviors**

Participants at all three sites were observed using learning and application behaviors consistent with the theoretical framework. Participants related concrete features of the case to actual care

or clinical events that occurred in their nursing homes. Further, participants were observed clarifying clinical content or processes with peers, such as exchanging information, making suggestions, or asking questions to determine what would be the next steps in appropriately managing care as described in the case study.

## Discussion and Implications for Regulation and Practice

We propose that developing strategies for nursing staff members to improve collaborative care is vital to reducing avoidable hospitalizations. Translational researchers in long-term care have identified a significant gap in our empirical knowledge about what happens when a quality improvement initiative is implemented in a nursing home (Cammer et al., 2014); this lack of knowledge continues to exacerbate the gap between research and practice (Rahman, Applebaum, Schnelle, & Simmons, 2012). Our learning innovation aims to address this gap by bringing together what our team has learned about how RNs and LPNs enact nursing practice in nursing homes with knowledge about how nursing staff members can learn new ways of working together effectively to manage resident conditions associated with avoidable hospitalizations.

An important implication of these findings is that nursing staff learned to effectively differentiate between RN and LPN practice, reducing the tendency to use RN and LPNs interchangeably. Interchangeability is ubiquitous in nursing homes as shown by recent research (Mueller et al, 2012). For example, of 142 LPNs surveyed in two states, 71% reported that RNs and LPNs did the same thing in their facilities; 56% reported being asked to perform nursing activities for which they were unprepared; and 48% reported being asked to perform activities outside their scope of practice (Mueller et al, 2012). The issue of exchanging LPNs for RNs thus could lead to job dissatisfaction for LPNs and RNs alike. The answer to changing practice patterns and to better differentiate RN and LPN practice in nursing homes might lie, in part, in the hands of the nurses themselves. Further research is needed to test this type of educational intervention, which puts the tools of change into the hands of the people that do the work.

Our success in conducting our educational innovation intervention and the alignment of participant evaluation data with our theoretical framework advances our understanding of how to embed empirical knowledge of nursing practice into staff learning approaches in a systematic way. Given our evidence-based understanding of nursing practice in nursing homes, our data suggest that this intervention is both conceptually aligned and feasible and likely will achieve the expected changes in practice patterns and relationships among staff and thus improve care. Furthermore, our intervention supports the notion of exploring novel delivery strategies for teaching-learning in nursing homes. Through our program, we were able to bring together staff members at three nursing homes, using real-time video-conferencing technology. This approach facilitated

the exchange of ideas among staff members who do not interact with one another on a regular basis.

Perhaps most importantly, we were able to bring together groups of RNs, LPNs, and NAs to simultaneously learn and develop new ways of working together effectively to provide care. Traditional continuing education trainings targeting nursing home staff are tailored for RNs, LPNs, or NAs based on the belief that tailoring is necessary because roles vary by position and licensure (Colón-Emeric et al., 2014). Our learning intervention demonstrates that real clarification and collaboration occur by bringing together diverse nursing staff members and coaching them to clarify what each role and licensure level contributes to nursing practice in relation to one another. This finding is consistent with literature about learning for interdisciplinary health professionals (Bridges, Davidson, Odegard, Maki, & Tomkowiak, 2011) and suggests a new direction for continuing education efforts.

We had some limitations in this study. With a small, convenience sample of staff members in three North Carolina nursing homes and a nonexperimental design, we were not able to assess the impact on quality of care outcomes; this will be done in the future. Also, only 55% of participants completed the postseries survey; thus, these findings should be considered preliminary. Despite the limitations, our intervention provides an important step forward in reenvisioning how to design teaching-learning programs to help nursing staff advance care quality in nursing homes for the purpose of making progress towards meeting patient safety and quality goals consistent with excellence in nursing practice.

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