Influence of co-teaching on the development of transformational leadership skills in undergraduate nursing students: a pilot study

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Abstract

In contemporary nursing practice, leadership roles have changed from administrative manager to one of coach and supporter. Evidence supports the use of transformational leadership as an effective framework for advancing nursing leadership. Transformational leadership involves an appreciation for being dynamic and responsive to complexity and uncertainty; it involves a relationship and the notion of mutuality, having a shared vision, and trust. All of these qualities identified relative to transformational leadership are also embodied within an effective co-teaching collaboration. The purpose of this study was to determine what impact co-teaching in a nurse educator course had on the development of transformational leadership qualities in undergraduate nursing students. We used a mixed-methods approach, including a quantitative leadership...
development tool and qualitative data in the form of pre- and post-course student interviews. Data were collected from three iterations of a Nurse as Educator course over a two-year period. Findings suggest that students developed transformational leadership qualities through the experience of being co-taught. Three key implications for practices in nursing education are discussed.

Introduction

Within an evolving healthcare context, nursing leadership is a vital component in the delivery of quality care. Nurses providing leadership at the point-of-care are a critical part of the future of patient care (RNAO, 2013). Thus the leadership role in nursing practice is more than that of an administrative manager. Rather, nurses are taking up more formal and informal leadership in terms of coaching, mentoring and teaching. Evidence indicates that learning about leadership in practice is often left until late in nursing degree programs, and that nurses are often unprepared to lead others and struggle to develop leadership skills (Curtis, DeVries, & Sheerin, 2011a; Kelly, Wicker, & Gerkin, 2014). Evidence supports the use of transformational leadership as an effective framework for advancing nursing leadership and the notion that leadership in nurses can be developed through educational activities, modeling and practicing leadership. Modeling the qualities that inform an effective co-teaching relationship can be a means through which transformational leadership can be taught to undergraduate nursing students.

The purpose of this article is threefold. First, to examine the place for transformational leadership in nursing and nurse education. Second, to share findings from a two-year mixed methods study that investigated the impact of teaching, and mentorship.

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co-teaching in a nurse educator course on the development of transformational leadership. Quantitative and qualitative data were collected from three student cohorts. Third, to provide three implications for practice and future research with regard to the design and facilitation of courses that purposefully utilize co-teaching to enhance students’ transformational leadership.

**Literature**

**Establishing the Need for Leadership Development in Nursing Education**

Heller et al. (2004) noted, based on a literature review and survey of nurse executives, the quickly changing role of a nurse leader to be less a manager and more of a mentor and coach. Training in this regard has not kept up to this role transition with nurses insufficiently prepared following their nursing education program. In addition, nurses often struggle to develop leadership skills (Kelly et al., 2014). Generally, nurses are not adequately prepared for the role of leader during their nursing education (Curtis et al., 2011a; Heller et al., 2004). Nursing instructors are in a unique position to educate and act as role models in developing leadership qualities and skills in the next generation of nurses. Holland (2015) stressed the need to recognize potential nurse leaders in undergraduate programs and foster their potential by having clinical and academic forces collaborate on leadership curricula, teaching leadership courses, and providing mentoring and shadowing opportunities.

**Transformational Leadership in Nursing**

Transformational leadership is described as a leadership style that aims to inspire others to develop and use
effective leadership characteristics (Burns, 1978). Transformational leadership has been characterized as challenging the process, modelling the way, sharing a bond with and inspiring followers, and being able to empower others through a shared vision and trust (Curtis et al., 2011a; Kouzes & Posner, 1995, 2002). Within the context of nursing, Smith (2011) noted the importance of nurses using a transformational leadership style due to an ever-changing healthcare system. Adopting a transformational leadership style is vital for nurses since it encourages change and allows for the recognition of areas in which change is needed (Pickerill, 2014). Evidence supports the use of transformational leadership as an effective framework for advancing nursing leadership and the notion that leadership in nurses can be developed through educational activities, modeling and practicing leadership. Further, those opportunities to observe leadership skills lead to greater self-efficacy in nurses’ leadership behaviours (Curtis et al., 2011a). Further to this, Smith (2011, p. 46) described how transformational leaders in the clinical setting “intellectually stimulate other nurses by encouraging the use of evidence-based practice and addressing the ‘how’ and ‘why’ of specific clinical actions”. Overall, nurses look for a number of key qualities in their leaders including the following (Sherman, 2012): commitment to excellence, passion about their work, clear vision and strategic focus, trustworthiness, respectfulness, accessibility, empathy and caring, and commitment to coaching and developing their staff.

Mathew’s (2014) quantitative comparative study examined transformational leadership qualities of graduating nursing students and nurses in clinical practice using the Leadership Practices Inventory (LPI)
(Posner & Kouzes, 1993). Education, age, position, and years of experience did not play a role in leadership skills of nurses in clinical practice, and, as one might expect, nursing students had significantly lower scores in four of five transformational leadership components (i.e., modeling the way, inspiring a shared vision, enabling others to act, encouraging the heart) than nurses in practice. Waite and McKinney (2015) utilized Kouzes and Posner's Student Leadership Practices Inventory (Kouzes & Posner, 1998) to examine students’ leadership attributes pre-post engagement in an undergraduate leadership program. Results showed a positive correlation and statistical significance in several practice areas. Their findings support the importance of integrating transformational leadership skills into undergraduate nursing curriculum. In an upper-level college communications course, Bolkan and Goodboy (2009) found moderate to strong correlations between the students’ perception of the instructor’s transformational leadership qualities and cognitive learning, affective learning, communication satisfaction, and motivation. This study suggests the need for nursing instructors to not only possess the qualities, but also demonstrate them in their instructional practice and in the design of student learning. The specific instructor behaviors or teaching strategies, such as educational activities, modeling and practicing leadership that represent transformational leadership to students in undergraduate nursing education remain to be understood.

Relationship between Co-teaching and Transformational Leadership

Co-teaching in higher education is defined as “two or more individuals who come together in a collaborative
relationship for the purpose of shared work...for the outcome of achieving what none could have done alone” (Wenzlaff et al., 2002, p.14). This collaborative relationship creates new opportunities for different ways to engage in curriculum design, planning, and teaching. Laughlin, Nelson, and Donaldson (2011) argued that co-teaching is more than pairing instructors together or teaching in a sequential fashion. Rather they posit that the success of co-teaching requires “careful preparation” (p. 12). According to Laughlin et al.’s (2011) work, characteristics of successful co-teaching partnerships involve discussing benefits of co-teaching, defining roles and expectations, negotiating effective pedagogical approaches, establishing strategies to manage challenges, and cultivating an understanding of co-teaching in higher education.

The complexity of co-teaching is revealed within the dynamic nature of the relationship, and need for educators to be flexible and responsive to each other and to the class. Co-teaching involves “messiness” (Plank, 2011, p. 2) that “moves beyond the familiar and predictable and creates an environment of uncertainty, dialogue, and discovery” (Plank, 2011, p. 3). Further, Plank (2011) argued that students observing “their teachers learn from each other and even disagree with each other models for students how scholars and informed citizens within a community of learning can navigate a complex and uncertain world” (p. 5). Within nursing, transformational leaders have been defined as change agents who believe in people and can deal with complexity and uncertainty (DeSimone, 1996). Transformational leadership requires an appreciation for being dynamic and responsive to complexity and uncertainty; it involves a relationship and the notion of
mutuality, having a shared vision, and trust. All of these qualities identified relative to transformational leadership are also embodied within an effective co-teaching collaboration.

Several studies offer evidence to demonstrate the influence of co-teaching on the development of nurses’ leadership in professional practice. In an evaluation of a co-taught communication skills course, Minardi & Riley (1991) found that when students were taught by more than one instructor, the teachers’ role modeled professional collaboration and leadership. Mislang (2011) discovered that nursing students responded positively to being co-taught; particularly noting that it challenged and promoted their learning and enhanced teacher credibility as they acted as role models. Dumas (1999) concluded that the strategy of co-teaching prepares nursing students to accept differing perspectives in professional values while also expanding their knowledge base. From such studies, it is evident that further inquiry is needed to examine how the experience of co-teaching influences student understanding of transformational leadership in professional practice.

Course Context
A co-taught Nurse as Educator course provided an excellent opportunity to consider the influence of co-teaching on the development of transformational leadership qualities in undergraduate nursing students. Taken by senior nursing students, this course examines the principles of teaching and learning in the role of nurse as educator; highlighting the practice standards and competencies associated with teaching expressed using keywords such as leadership, collaboration,
facilitation, quality improvement, continuing competence, and lifelong learning.

Co-teaching was enacted through two instructors providing simultaneous instruction to each group of students throughout three semesters. Both instructors mutually engaged in a collaborative relationship involving joint planning, instruction, and assessment throughout the instructional time. This pedagogical approach was made explicit by the two instructors modeling effective co-teaching, which provided students with an example of how to enter into professional relationships and manage differences in values and opinions while maintaining mutual respect and openness (Dumas, 1999; Mislang, 2011). The attributes of trust, having a willingness to learn, being open to experiencing vulnerability, and being in authentic relationship characterized the co-teaching dynamic, and revealed the qualities essential to enact transformational leadership (Lock et al., 2016).

Through one assignment in the course, students were required to demonstrate teaching and leadership competency in collaboratively developing and delivering a 3-hour education session to their junior peers. Embracing a co-teaching stance, students were challenged to have a mindful approach to sustaining a relationship based on mutual respect and openness, establishing trust, and having a shared vision; while gaining an appreciation for the need to be dynamic and responsive to the complexity within the classroom. Through reflection on their teaching experiences, feedback from peers, and exploration of the literature, students articulated their values, beliefs, and foundational philosophy that supports their professional
teaching and leadership practice.

Research Design

The inquiry sought to explore the influence of co-teaching on the development of leadership in professional practice. The following research question guided the study: What impact does co-teaching in a nurse education course have on the development of transformational leadership in undergraduate nursing students? Data was gathered using a mixed-method research design (Creswell, 2013) including a quantitative survey and qualitative interviews. Quantitative and qualitative sources of data were analyzed and interpreted to determine where they converged, thus informing outcomes and contributing to recommendations from the research. Three cohorts of senior students enrolled in the Nurse as Educator course, representing an N = 63, were invited to participate in the study via in-class recruitment by members of the research team. Participation was voluntary, with the option to withdraw at any time. Data was reported as an aggregate and participant contributions remained anonymous. The instructors teaching the course were not aware of which students participated in any aspect of the research.

Quantitative data was gathered using Kouzes and Posner’s (1998) Student Leadership Practices Inventory (SLPI). Transformational leadership style has been operationalized through the development of Kouzes and Posner’s 5 structure model of exemplary leadership practices and measured through the corresponding Student Leadership Practices Inventory (SLPI) (Kouzes & Posner, 1998; Kelly et al., 2014). The SLPI includes a 30-item self-assessment instrument that assesses the frequency of five exemplary leadership behaviors.
(Kouzes & Posner, 2014) that correspond to the qualities that illustrate transformational leadership:

1. *Modelling the way* – affirming and setting an example of shared group values;
2. *Inspiring a shared vision* – creating a shared vision that honors possibilities for the individual and the group;
3. *Challenging the process* – intentional learning from experience that embraces opportunities and innovation;
4. *Enable others to act* – roster collaborative and trusting relationships that nurture self-determination and competence
5. *Encouraging the heart* – recognizing and celebrating individual contributions in the spirit of community.

Items are scored on a 5-point Likert-type scale (1 = rarely or seldom; 5 = very frequently), and each domain has 6 items; a total subscale score (range = 6-30) is the sum of the 6 domain items. The SLPI has been widely used in student populations. Normative data from nearly 78,000 students demonstrate evidence for reliability (Cronbach’s alpha > .70) (Kouzes & Posner, 2014). The Student Leadership Practices Inventory (SLPI, Kouzes & Posner, 1998) was administered within the first two weeks of the course (baseline) and immediately following the course (follow-up). A total of 9 students completed the SLPI at baseline and follow-up.

Qualitative data were collected from individual interviews with students. Student interviews were conducted at the end of the course (n = 11) and 4 months later (n = 7). We chose to interview students following the course to elicit their understanding of leadership
development relative to the experience of being co-taught, and engaging in co-teaching. The interview four months following the course, occurred during their final clinical practicum. The rationale for conducting the follow-up interview at this time, was to determine if their perceptions of their leadership development transferred beyond the course into their practice. The interview guide for students included questions about co-teaching, how co-teaching influenced student learning, and how the experience of co-teaching and being co-taught influenced leadership development. The interviews were 20 to 30 minutes long and conducted by a member of the research team who was not involved with the course. Interviews were audio recorded and transcribed verbatim. We used Saldaña’s (2013) two stage process of coding which involved hand-coding the data. In the first cycle of coding, codes were assigned to data by using the interview questions as a guide. The second cycle included an in vivo coding process whereby words or phrases from transcript were recorded as codes (Miles, Huberman, & Saldaña, 2013). In further analysis of the codes, repetition of the words or phrases by the participants led to the development of patterns and themes (Saldaña, 2013).

Discussion of Findings

The findings from the study will be discussed relative to the quantitative data and the results of the baseline and follow-up implementation of the Student Leadership Practices Inventory (SLPI). The quantitative data analysis will be followed by a consideration of the qualitative data revealed from the student pre- and post-interviews.

Quantitative Data – Student Leadership Practices
Inventory (SLPI)

There were a total of nine students who completed a baseline and follow-up SLPI. Table 1 displays the SLPI domain mean scores of the five exemplary leadership behaviors at baseline and follow-up for the nine students who completed both. The ratings on the baseline survey two weeks into the Nurse as Educator course range from 19 to 25 out of a possible score of 30 (See Table 1). The ratings indicate the students’ perception of their leadership capacity having been exposed to a co-teaching approach for two classes, and no formal course in leadership through the nursing curriculum. The lower ratings support the need for adequate preparation and modeling of transformational leadership qualities for the role of leader during undergraduate student nursing education (Curtis et al., 2011; Heller et al., 2004; Mathews, 2014). Mean scores improved in the domains associated with inspiring a shared vision, encouraging the heart, and modelling the way during the follow-up SLPI taken at the completion of the course. Ratings ranged from 21 to 25 out of 30. Given the small sample size and low response rate, we were unable to determine any statistical significance to the changes with regard to the baseline and follow-up scores.

Table 1. Mean Scores from SLPI of Students’ Perception of their Leadership Capacity

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Note: Kouzes and Posner’s (1998) Student Leadership Practices Inventory (SLPI)

Qualitative Data – Interviews

Qualitative data were collected from individual interviews with students. Student interviews were conducted at the end of the course (n = 11) and 4 months later (n = 7). Students were asked how being co-taught and engaging in a co-teaching assignment influenced their development as a leader. From their responses four key themes related to transformational leadership development emerged: 1) purposeful course design; 2) modeling; 3) experiential learning; and 4) personal development as a nurse educator and leader.

Purposeful Course Design

The intentional design of the co-teaching practices in the classroom and the peer education assignment provided opportunities for students to observe and engage in leadership activities. The literature suggests the need for nursing instructors to not only possess transformational leadership qualities, but also demonstrate them in their instructional practice and in the design of student learning (Bolkan & Goodboy, 2009). The co-taught peer education assignment provided an opportunity for the students to experience being a leader. Interview data revealed that students appreciated the support and collegiality they were able to offer one another; mirroring the importance of a trusting, respectful relationship as a quality of transformational leadership. As reported by one student, “when I taught that class...having the support of the other student. That definitely helped me to develop the leadership skills.” This is an example of how one student enabled another to act as a leader, reflective
of the transformational leadership quality, enabling others to act (Kouzes & Posner, 1998). In her interview, another student commented, “I think having that experience to teach the second year students really helped...It’s a first exposure to being a leader and being responsible for student knowledge.” During her interview one student commented; “Having the opportunity to see how well co-teaching can go, it means good leadership doesn’t have to mean you’re on your own...as an influence of me as a leader, it definitely opens up my options on how I approach leadership in general”.

Working together provided the opportunity to encourage and support each other to achieve the common goal or vision of the assignment, which is reflective of Kouzes and Posner’s (1998) exemplary leadership practice; inspiring a shared vision, characterized by creating a shared vision that honors possibilities for the individual and the group.

Modeling

During the interviews, when students were asked how the co-teaching influenced their practice, they noted “it set a good example.” Minardi and Riley (1991) found that when students were taught by more than one instructor, the teachers’ role modeled professional collaboration and leadership. This understanding also shows that students recognize the transformational leadership quality, modelling the way (Kouzes & Posner, 1998). Interview data also revealed that students described how the experience of co-teaching during their peer education assignment, provided an example of shared leadership. One student noted how they were able to draw on each other’s strengths:

You think leaders are individual people and with
co-teaching you see that leadership can be a shared role that can go back and forth...In my own practice, I’m taking that leadership role to educate the patient but when we have the group appointments with all the expertise in the room, the leadership role can pass to another person.

This data demonstrates that students are acknowledging the exemplary leadership quality of encouraging the heart, where transformational leadership is enacted through the recognition and celebration of individual contributions in the spirit of community (Kouzes & Posner, 1998). This may also have accounted for the slight increase in the SLPI score in this domain during the follow-up inventory once students were in their final practicum, and able to apply this transformational leadership quality to their practice.

Experiential Learning

Interview data revealed that many students had their original notion of teaching and leadership disrupted through the observation of co-teaching and the actual doing of co-teaching as part of their assignment. During her interview, one student’s comment captured the essence of the insight into the complexity of teaching and demonstrating leadership and what that means in terms of professional practice:

My observations (of the co-teaching) and teaching experiences this semester have changed my view of teaching in a drastic way. After this course I realize that teaching is not so black and white, but is in fact a complex and dynamic skill.
This data validates the students’ appreciation for the transformational leadership qualities embodied within an effective co-teaching collaboration; engaging in a relationship that is dynamic and responsive to complexity and uncertainty; while embracing a shared vision through fostering mutuality and trust (DeSimone, 1996; Lock et al., 2016; Plank, 2011). Another student in her interview, remarked on the challenge of grasping the concept of leadership in the first three years of the nursing program. However, as a result of experiential learning in the course, this student recognized her professional commitment to take on leadership. She commented, “At the end of the day, I’m going to be responsible...And to me that represents leadership.” Evidence confirms that opportunities to observe and engage in leadership skills leads to greater self-efficacy in nurses’ leadership behaviors. The data also supports the notion that leadership in nurses can be developed through educational activities, modeling, and practicing leadership (Curtis et al., 2011b).

Personal Development as a Nurse Educator and Leader

Interview data revealed that students valued the opportunity to apply theory to practice in the classroom and then subsequently take the same theories and apply them to actual nursing practice when working with junior peers and patients. One student commented:

I was provided with the incredible opportunity to advance my teaching skills through theory, observational and actual teaching experiences. I found that the teaching experiences helped me to put the knowledge and skills I had learned about into practice...
This data supports an understanding of the significance of growing in your practice, which communicates to others the transformational leadership quality of nurturing self-determination and competence through enabling others to act (Kouzes & Posner, 1998). Transformational leaders in the clinical setting demonstrate the application of theory to practice and stimulate intellectual curiosity (Sherman, 2012; Smith, 2011).

From the experience of being co-taught, interview data uncovered the students’ perceptions of the fluid nature of the leadership role and how effective co-teaching collaboration creates a space to be responsive and navigate through complexity (DeSimone, 1996; Plank, 2011). During an interview, one student spoke of how they understood their experience and the transferability of leadership skills to practice:

I’m at a community placement and it’s a mosaic...a whole team of people...so working together collaboratively to bring together our individual expertise and run the group. The co-teaching gave us an example of how this could work well.

The findings support the influence of co-teaching on students’ understanding of enacting transformational leadership, in addition to the importance of integrating transformational leadership skills into undergraduate nursing curriculum (Laughlin et al., 2011; Waite & McKinney, 2015).

Implications for Practice and Future Research

From the analysis of the data, three key implications for
practice and research emerged. First, the data revealed the potential value of co-teaching in undergraduate nursing education. Transformational leadership qualities may be embodied within effective co-teaching. The intentional approach and creation of experiences associated with co-teaching enables students to discover and construct leadership knowledge. Co-teaching engages students in ways that encourage transformational leadership. Further inquiry is needed to strengthen the understanding of the impact of co-teaching on the development of transformational leadership.

Second, there is a need to further examine the impact of intentional course design, in particular the purposeful integration of transformational leadership concepts across the curriculum through a co-teaching approach. This could involve intentionally designing courses so that students experience co-teaching in a manner that creates opportunities to foster the characteristics of transformational leadership, much like the peer education assignment noted within this study. Research should involve identifying and evaluating the impact of approaches, experiences, and dialogues that are embedded through the intentional design and facilitation of assignments in courses that are attempting to develop transformational leadership capacity.

Third, it is important to ensure appropriate faculty development related to the practice of co-teaching and its relationship to transformational leadership. Development also involves making explicit the link between effective co-teaching and the promotion of transformational leadership qualities. Equipping faculty to enact effective co-teaching to foster transformational
leadership requires ongoing support and mentorship. Studying the faculty development practice, along with how faculty implement what they have learned will help to inform educational development in support of co-teaching for transformational leadership.

This study has limitations given its small sample size and the fact that all data are self-reported. The latter makes it particularly difficult to determine if students did, in fact, gain leadership skills. Additionally, despite our best efforts there was attrition for the SLPI follow-up with students. This was likely due to the students being finished with the class portion of the course and involved in their practicum placement.

Conclusion

Despite its limitations, this study suggests the potential for co-teaching to contribute to the development of transformational leadership qualities in undergraduate nursing students. Although transformational leadership has been studied in relation to nursing, valuing co-teaching, and modelling the qualities associated with transformational leadership through an effective co-teaching collaboration informs the nursing education literature. Being intentional in curricular design and creating learning opportunities for students to experience co-teaching, informs the current understanding within the literature in higher education and in nursing, of the need to develop leadership potential through educational activities and practicing leadership. Supporting faculty to engage in effective co-teaching that promote transformational leadership qualities were implications that informed undergraduate nursing education. Identifying the qualities that contribute to an effective co-teaching collaboration as
those aligning with transformational leadership qualities inform the literature on co-teaching in higher education.

Modeling effective co-teaching and providing opportunities for students to experience co-teaching in undergraduate nursing education may embody the qualities associated with transformational leadership, and thus offer students the foundation to discover and construct leadership knowledge for themselves, ultimately informing their capacity to function as future leaders in contemporary health care. The conclusions from this pilot study suggest the value of exploring co-teaching in higher education and determining the potential to cultivate leadership capacity in undergraduate students across disciplines.

References


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