



# Learner-centred teaching in a non-learner-centred world: An interpretive phenomenological study of the lived experience of clinical nursing faculty<sup>☆</sup>

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## ABSTRACT

**Background:** With the growing complexities in the contemporary health care system, there is a challenge of preparing nurses for the practice demands. To this end, learner-centred teaching has emerged in many nursing curricula in Canada and evidence indicates its effectiveness in developing the essential practice skills in nursing students. It is important to examine the experience of the clinical faculty members who implement learner-centred teaching, as doing so would provide an insight to the factors that may hinder the implementation of learner-centred teaching in the practice settings.

**Objective:** This phenomenological study aimed to address two research questions: what does learner-centred teaching mean to clinical nurse faculty? What is the lived experience of clinical nursing faculty who incorporate learner-centred teaching?

**Methods:** Ten clinical nurse faculty members who had at least two years of clinical teaching experience volunteered to participate in the study. Data were collected using a semi-structured interview guide and audio recorder. Additional data sources included a demographic survey and a reflective journal.

**Results:** Multiple sub-themes emerged from this study from which three significant themes were consolidated: diversity of meanings, facilitators of LCT, and barriers to LCT. However, an overarching theme of “learner-centred teaching in a non-learner-centred world” was coined from participants' accounts of their experiences of barriers in incorporating LCT in the practice settings.

**Conclusion:** A collaborative effort between faculty and the stakeholders is paramount to a successful implementation of learner-centred teaching in practice settings.

## 1. Introduction

Due to the complexities of healthcare systems in the 21st century, the quality of nursing education continues to raise a serious concern (Brown, 2017; Darbyshire and McKenna, 2013; Institute of Medicine, 2011; Western and North-Western Region Canadian Association of Schools of Nursing [WNRWCASN] Conference, 2015). While nurses are required to practice effectively and navigate today's complex health care system, traditional education is inadequate in meeting this requirement (Benner et al., 2010). The growing awareness about the need for a paradigm shift has stimulated an interest in the use of learner-centred teaching (LCT) in nursing education (Greer et al., 2010; Sun et al., 2014).

In this study, LCT is defined by five tenets established by Weimer's (2013) model: a.) power, b.) roles, c.) learning responsibility, d.) course content, and e.) purpose of evaluation. Weimer's model has its

philosophical root in constructivism that emphasizes the learner's critical role and active participation in constructing meaning from new information and past learning experience. According to Weimer (2013), a learner-centred teacher empowers students to take responsibility for learning and uses course content to develop students' learning skills. A learner-centred teacher assumes the roles of a facilitator and a guide, and uses evaluation to promote learning and assist students develop into independent and self-directed learners (Fig. 1).

## 2. Background

Evidence indicates the use of LCT strategies such as simulation, reflective thinking, case-study analysis, and concept-based learning in nursing programs (Avdal, 2012; Cheng et al., 2013; Lapkin et al., 2010; Raterink, 2012). LCT methods such as self-directed learning, problem-based learning, cooperative learning techniques, and team-based

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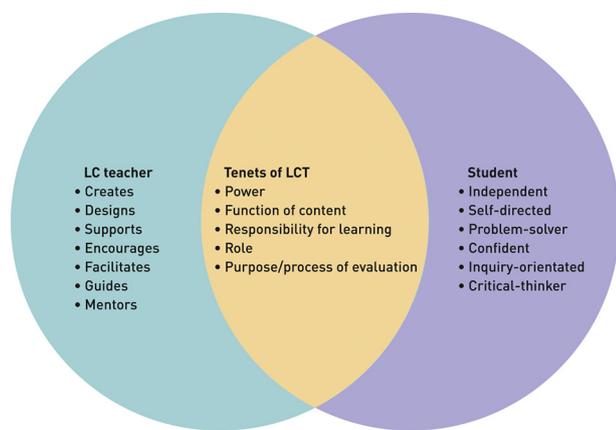


Fig. 1. Model of learner-centred teaching (Weimer, 2013).

learning enhance problem-solving and analytical skills in students (Avdal, 2012; Cheng et al., 2013; Cui et al., 2018; Sun et al., 2014). Comparative studies demonstrate the effectiveness of these methods over traditional teaching approaches (Chan, 2013; Jeffries et al., 2002; Rideout et al., 2002).

In recent years, many nursing programs in Canada have introduced LCT methods into academic curricula and clinical nursing faculty (CNF) now incorporate LCT in the practice settings. The CNFs in this study were faculty members whose responsibilities focus on collaborating between academic and practice settings to plan undergraduate nursing students' clinical experiences, facilitating the integration of theory to clinical practice, and evaluating students on an ongoing basis. Although many nursing programs have embraced LCT to prepare nurses for the practice demands, to date there has been limited attention to the contextual influences that could impede a lasting adoption of this model.

The primary aim of this study was to examine the meaning of LCT from the perspective of the CNFs and their lived experience of LCT. A popular argument is that two thirds of organizational efforts to sustain new innovations usually fail (Damschroder et al., 2009). A reformation may not last if attention is not paid to contextual influences that make it vulnerable to erosion over time (Wiltsey Stirman et al., 2012). Failure to understand the experience of those implementing new changes has been identified as a significant shortcoming of most educational reforms (Fullan, 1991). LCT is a promising pedagogy for today's generation of nurses therefore any factor that could affect its sustainability calls for attention. Examining the CNFs' meaning and experience of LCT provides an insight into how these perspectives may influence the implementation and the sustainability of LCT in the practice settings. The primary research question for this study was "What is the lived experience of CNF implementing LCT in practice settings?" The sub-question was "What does LCT mean to the CNF?"

Table 1  
Participants' characteristics (N = 10).

Participants (fictitious names)	Age range (in years)	Education level	Years of work as RN	Clinical teaching experience (in years)	Level of students taught	Practice setting	Type of Education received
Alice	26–35	BN	8	5	2nd year	Medicine/surgery	Traditional
Blue	> 65	BN	> 46	5	2nd year	Long-term care	Traditional/LCT
Bobbie	46–55	MN	30	25	3rd year	Medicine	Traditional
Candace	36–45	BN	10	4	2nd year	Labor/delivery	Traditional
Diana	26–35	MN	13	2	2nd year	Medicine/surgery	Traditional/LCT
Marie	46–55	BN	34	13	3rd year	Community/agency	LCT
Melanie	36–45	MN	15	15	3rd year	Medicine/surgery	Traditional
Brenda	46–55	MN	25	4	2nd year	Labor/delivery	Traditional
Paula	46–55	BN	26	15	4th year	Surgery	Traditional
Winnie	56–65	MN	30	3	1st year	Long-term care	Traditional

### 3. Methods

This qualitative study used interpretive phenomenology design to address the research questions. The five tenets established by Weimer (2013) served as a guide in interpreting the meaning of LCT described by the participants (see Fig. 1).

#### 3.1. Sample and setting

Following an institutional ethics approval, a purposive sample of CNF was invited through email for this study. CNFs with a minimum of 2 years of clinical teaching experience were invited. This criterion ensured that participants had enough teaching experience to articulate their day-to-day experience incorporating LCT. Ten CNFs who volunteered to participate were from an undergraduate baccalaureate nursing program located in Western Canada. All participants were female, and the ages ranged from 26 to 65 years of age, with a mean age of 45 years. Five participants had a Bachelor of Nursing degree, five were concurrent students in graduate nursing programs, and all participants previously worked as registered nurses. Years of clinical teaching experience ranged from 2 to 25 years with a mean of 12 years. Five participants taught theory nursing courses in a classroom setting in addition to clinical teaching. Practice settings varied between acute and community settings (see Table 1). Table 1 provides a description of the purposive sample and uses fictitious names or in other words, pseudonyms, to promote confidentiality and protect participating CNFs' identities.

#### 3.2. Data collection

The primary investigator and first author of this paper conducted individual interviews over a period of two months at different locations scheduled by participants. Following a written consent and demographic information, a semi-structured interview of one-hour duration was conducted with each participant. They were asked to describe what LCT meant to them and their everyday experiences in using LCT. The audio recorded interview was transcribed verbatim.

#### 3.3. Data analysis

Using a thematic approach, all data were analyzed concurrently during the interview process until data saturation was reached. The thematic analysis involved looking for meaning, identifying, writing and rewriting, and reflecting on essential statements that described the participants' account of daily experiences (Finlay, 2014). Each transcript was read several times. Significant statements were identified for a full understanding of the participants' responses. The focus of the analysis was any statement about the participant's meaning and typical experiences with LCT. The researchers used Weimer's model as a guide and not as a priori theory. The tenets of LCT helped to make sense of the participants' statements that described the meaning of LCT. Statements

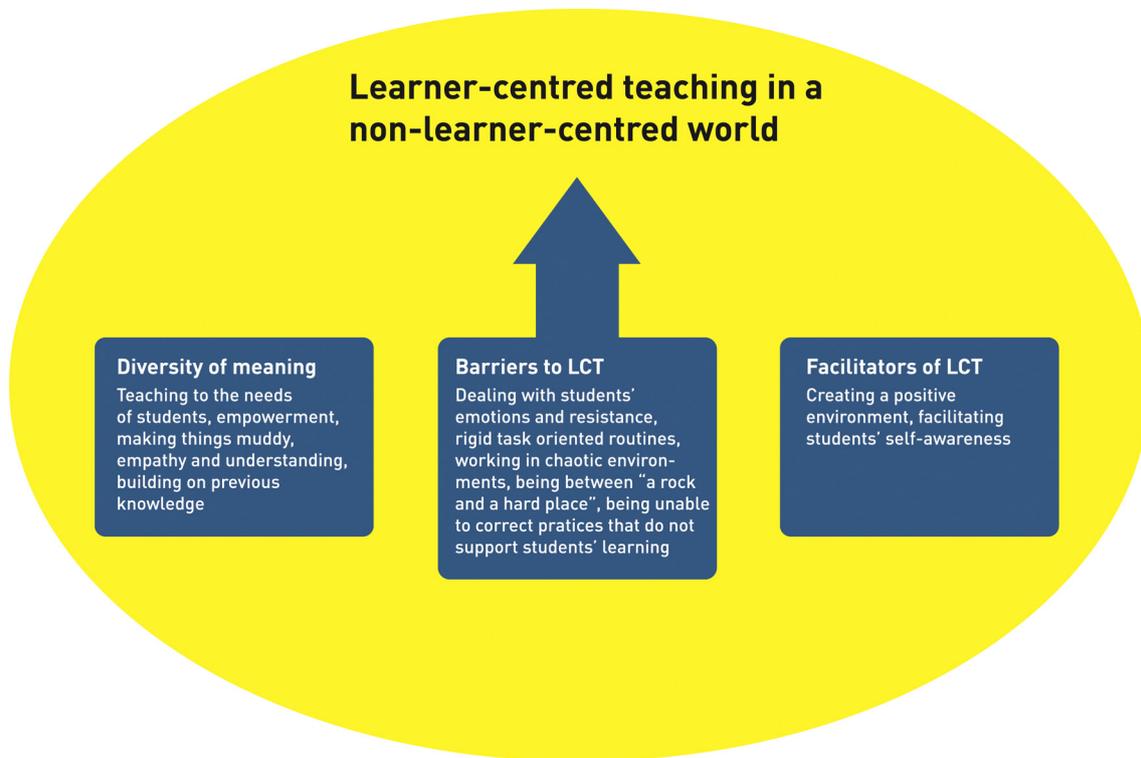


Fig. 2. Themes of CNFs' meanings and the lived experience of LCT in the practice settings.

relevant to the tenets of LCT were clustered into subthemes.

The researchers used several methods to establish the trustworthiness of data. For instance, in order to minimize the risk of researcher biases throughout the process of data collection and analysis, the first author engaged in documentation of personal experiences and beliefs in a reflective journal. There was a short debriefing after each interview for the participant to listen and make corrections to any ambiguous statements. Two participants who volunteered to review their interviews for accuracy received a copy of the transcript. In addition, both the principal investigator and the second author compared and contrasted the initial codes, categories, and themes to establish inter-rater reliability and validity of the coding schema.

#### 4. Results

Three significant themes consolidated from the multiple subthemes that emerged from this study were: diversity of meaning, facilitators of LCT, and barriers to LCT. However, an overarching theme of "learner-centred teaching in a non-learner-centred world" was coined from participants' accounts of their experiences of barriers in incorporating LCT in practice settings (see Fig. 2). Fictitious names or pseudonyms are used when direct quotes are provided to protect the identity of the participating CNFs and convey significant findings.

##### 4.1. Diversity of meaning

Diversity of meaning emerged from the participants' description of how they operationalized LCT in practice based on their understanding. They often discussed teaching and learning activities that they engaged in. It was apparent that participants' understanding of LCT was interwoven with the description of their practice, thereby making the meaning inseparable from the implementation of LCT.

##### 4.1.1. Teaching to the needs of students

Two participants used the phrase "teaching to the needs of students" to describe LCT. A salient notion was the need to understand students'

characteristics so that teaching could be modified to meet their individual learning needs.

*I'm more deliberate in thinking about the individual needs of the student, and I feel like my tactics, even over the course of the 9 or 10 weeks ... have changed. I try to be quite sensitive to what I think the level of the student is, regarding what they need and what they need to be.*

(Winnie)

Participants identified that teaching to the needs of students required relationship building, flexibility, and recognition and acknowledgment of student individuality.

*Students learn in different ways, so we need to modify our teaching in various ways to meet the students' learning needs.*

(Paula)

*To me, adapting certain clinical assignments to students' learning needs is learner-centred teaching.*

(Brenda)

##### 4.1.2. Empowerment

While the participants acknowledged the existence of power differential within the student-faculty relationship, they believed that sharing of power is LCT.

*Getting rid of some of the power differentials that typically have been present in the history of nursing education...you go from like being top-down to becoming more collaborative with your students.*

(Brenda)

*As an instructor, I'm evaluating students, so there's a little bit of a power dynamic...we need to treat them like they are our colleagues.*

(Candace)

*I empower them...I tell them it's their right to do that...if they truly believe that there's inaccuracy in this data, they should question it. And I say to them, and I want you to question me.*

(Bobbie)

While participants may have recognized empowerment as an essential component of LCT, they still believed it was their responsibility to direct students' learning as students may not be ready or mature enough to make reasonable decisions.

*But students are basically selfish, they don't have a tunnel vision of what they need to do, they can't figure it out themselves either.*

(Blue)

*The big challenge is when you allow them to have a bit of latitude to make their own decision.*

(Bobbie)

#### 4.1.3. Making things muddy

Participants shared that, rather than providing a “ready solution” to clinical problems, they often challenged students to explore, problem-solve, anticipate, and think of what they could do in potentially critical situations.

*I require students to have to find the answers on their own and making things a little bit muddy for them... getting them to think critically.*

(Alice)

*Facilitating their problem-solving skill and seeking clarification ... I've had students say to me you're making me think like a nurse, so it's their perception of what a nurse should be thinking like.*

(Bobbie)

#### 4.1.4. Empathy and understanding

Participants equated LCT with insight and knowledge of students' cognitive processes regarding patient care.

*It's about thinking about how the students are thinking... and providing care to a patient. I look at the situation that contributes to their decision-making... it's about understanding, taking the time and having the empathy to understand where they're coming from, what their experiences are.*

(Winnie)

#### 4.1.5. Building on previous experience

To one participant, LCT meant creating opportunities for students to recognize their own past learning experience and build on the skills.

*Because they've had previous clinical experiences, they're building on their last clinical skills, and that's the expectation we talk about in orientation. I expect that I can rely on what you already have, that we can grow together.*

(Bobbie)

### 4.2. Facilitators of LCT

LCT was not defined in itself but in connection with certain conditions that support its implementation. Participants identified positive environment and self-awareness as two essential facilitators of LCT. They believed that teaching should foster these facilitators in order to promote learning.

#### 4.2.1. Positive environment

Creating a positive learning environment that fosters trust and communication. Participants believed that a positive learning environment represented a place where students were confident to ask questions without fear of consequences.

*I think to facilitate learner-centred teaching, learning environments need to be trusting and safe for students' learning.*

(Alice)

#### 4.2.2. Facilitating students' self-awareness

Participants believed there was a connection between self-awareness and taking responsibility for learning. Furthermore, they suggested that facilitation of self-awareness was a LCT strategy.

*I think being self-aware through self-assessment, a student can set realistic goals and be in charge of their learning and take ownership for their learning. I encourage them to identify personal strengths and weakness, motivation and abilities.*

(Candace)

### 4.3. Barriers to LCT

When describing barriers that they experienced with LCT, they talked about difficulties in dealing with students' emotion and resistance, complying with rigid facility routines, working in chaotic environments, being between “a rock and a hard place” during students' evaluations, and being unable to correct practices that do not support students' learning.

#### 4.3.1. Dealing with students' emotions and resistance

Participants expressed difficulty in engaging students on taking learning responsibilities, mainly when students were anxious, or they were not open to feedback.

*As students are fearful of us and I sometimes find that I put a lot of effort into making sure they understand my role and my responsibility.*

(Candace)

*It can be hard; especially if an individual starts crying because you know that they're having a hard time coping with the situation... I mean, was I being too assertive or am I expecting too much?.*

(Alice)

#### 4.3.2. Rigid task-oriented routines

Two participants described difficulties in meeting the demands of routines and task-oriented activities, as they often impeded flexibility and LCT.

*Being on a highly paced unit, the typical day is full of routines.*

(Paula)

*There is still an element of militarism; you know, fitting into the regime and that kind of thing.*

(Winnie)

One participant perceived that nursing staff had unrealistic expectations or misunderstood the role of CNF. Participants felt pressured and responsible for ensuring that students completed tasks correctly.

*I think another issue for me and probably for many instructors or CNF is if they worked on the area, their nursing colleagues are expecting them to do all the tasks with the students to make their life easier, which can take away from the students' needs.*

(Brenda)

#### 4.3.3. Working in chaotic environments

Participants commonly described their experiences in teaching in fast-paced, chaotic environments and adapting to facility routines and task-oriented activities. They also shared stories of their struggles in balancing instruction, routines, time management, and patient safety.

*We are in a busy ward, so lots of these patients are pretty acute. It's important for me to ensure students understand what medications they're giving their patients and knowing what system and the mechanisms of action, so they can know what they're going to be assessing prior to giving the medication.*

(Diana)

*It's much more difficult to take student goals into your planning when you're just trying to keep everybody safe and in the right places.*

(Brenda)

#### 4.3.4. Being stuck between a rock and a hard place

Participants found it essential to incorporate LCT approaches into the evaluation, but students resisted the approaches in ways that caused emotional distress for some CNF.

*I find it the most challenging presenting a plan of action to students and it almost seems like I'm breaking their heart, that's a really hard thing for me to do.*

(Diana)

*A specific example was when I was dealing with an international student who did not take feedback very well.*

(Melanie)

Another challenging experience described by a participant was the feeling of powerlessness and insufficient support during a summative evaluation.

*Once my assessment of a student was a low "C," and my course leader really didn't think the student was competent, and she went through my evaluation. After an hour and a half of dialoguing with her and fighting with her in a way, she convinced me to fail this student. I look back on it now and I still feel that it was a weak moment.*

(Brenda)

#### 4.3.5. Being unable to correct practices that do not support LCT

Another participant described her experience being unable to challenge staff practices that did not support LCT, as following through with such issues often provoked interpersonal conflict.

*I still feel very guilty about it. I feel like St. Peter when he denied who Jesus was...do we go running to the nurse manager and say this is what I saw...it's very difficult, and the students can see that, you know ... I think that is a big issue.*

(Blue)

## 5. Discussion

LCT is one of the most researched and acclaimed pedagogies, but it is often interpreted differently by faculty and often defined in part by its components (Colley, 2012; Stanley and Dougherty, 2010). The theme "diversity of meaning" confirms the lack of concrete definitions of LCT in the literature. Participants described numerous meanings that were interpreted in accordance with the five tenets of LCT in Weimer's model. In other words, LCT was defined in relation to empowerment and handing learning responsibilities over to students. The key instructional practices described by the participants focused on facilitating and nurturing students in a caring clinical learning environment. There was emphasis on the respect for students' choices while encouraging participation in decision-making and setting of goals for learning.

In agreement with Weimer (2013) and Greer et al. (2010) that empowerment for learning requires relationship building, the participants worked in collaboration with students to identify needs and learning goals. Although many participants supported the empowerment of students, not all participants agreed with this view. This skepticism may indicate a teacher-centred mindset, lack of self-awareness, and a tendency for traditional teaching practice, despite their claim for implementing LCT approach.

Learning involves a basic skill set, an understanding of the unique configuration of content, and creative integration of theoretical information to address complex practical problems (Weimer, 2013). Contrary to this view of LCT, participants described the task-oriented

activities around which they had to adapt teaching. It may not be intended to replace critical analysis with psychomotor skills but rigid routines and lack of flexibility may push students into superficial learning which does not support critical thinking. In using "making things muddy" approach, participants believed that learning was active when students actively searched for solutions to problems. Unfortunately, students' emotional response to this approach was a challenge to the participants.

Weimer (2013) used different metaphorical examples to describe a learner-centred faculty: "a gardener-planting, tending, and nurturing the plants," or "a coach who instructs the players also participates in the game" (p. 75). Participants' account of roles fit LCT, but the most salient role was that of a coach. The participants shared that they were available to guide and instruct students but ready to step in during critical the situations. In evaluating learning, Weimer (2013) argues that faculty should assist students develop skills in self-assessment and constructive judgement of peers' works. Although the participants claimed that they incorporated LCT in evaluation, there was no indication that they involved students in the process which could explain why the participants experienced difficulties.

Although this study identified many barriers that may be unique to practice settings, previous research in the classroom and laboratory settings also describe similar barriers and challenges. For instance, Greer et al. (2010) describe limiting factors such as inadequate time, administrative issues, and lack of understanding by faculty and students about what is required to transform teaching to the LCT model. Although the issue of insufficient time is consistent in many studies (Colley, 2012; Greer et al., 2010; Qhobela and Kolutsoe Moru, 2014), the time-related barrier in this study was due to the pressure to complete task-related practice routines by a scheduled time. Thus, there was no room for flexible teaching-learning activities as advocated by Weimer (2013).

A lack of adequate knowledge regarding the LCT philosophy is a barrier consistently identified in the research examining the implementation and experience of LCT among nursing faculty (Colley, 2012; Greer et al., 2010). In Qhobela and Kolutsoe Moru (2014), faculty faced the challenge of drifting back to the traditional approach due to a lack of deep understanding and strong pedagogical knowledge regarding LCT. Clinical teachers require a significant understanding of LCT and theory as well as clinical competence to enhance application of theory in clinical settings (Sun et al., 2014). Lekalakala-Mokgele (2010) also found that faculty members who received traditional education often experience difficulties using LCT because they often prefer to continue with the traditional approach. Nine out of the ten participants experienced teacher-centred learning during their education, and this study did not indicate that the participants had further education or faculty development programs through which they could gain expertise in LCT. The participants may have relied on their past educational experiences as students for the delivery of teaching. A lack of strong educational preparation about LCT and a challenging experience with students' evaluations may suggest a need for further educational preparation for the participants.

Studies indicate that changing from teacher-centred learning to LCT often provokes resistance. The staff resistance discussed by participants did not manifest as direct opposition as indicated in Greer et al. (2010) but in the form of some practices that did not support LCT, and the participants' inability to correct such practices was a barrier. Evidence also indicates that students often resist a change from the traditional teaching-learning approach due to lack of understanding, unfamiliarity, confusion, and uncertainty about a new teaching method (Sever et al., 2010; Weimer, 2013). Students' resistance was manifested in this study in their response to feedback or evaluations. This study identified some negative emotions and the challenges that participants experienced while dealing with students who did not perform well in clinical practice.

A lack of adequate skill in dealing with issues of evaluation may

have been an additional barrier, as some participants shared experiences of frustration in connection with the evaluation process. Some problematic experiences resulted from evaluations that students perceived as unfavourable. This problem also indicates a need for both faculty and students to be educated on how LCT works. CNF may require professional development in the area of LCT methods of evaluation and how to address possible resistance to those methods.

While students' resistance may be due to inadequate understanding, this experience may be relevant to the claim that students do not inherently dislike the LCT philosophy, but they tend to respond negatively to the implementation details, such as evaluation practices (Weimer, 2013). For students to embrace these details, they require a level of intellectual maturity which may not be present at the time LCT is being introduced. This study did not indicate that the participants engaged in the initial students' assessment of readiness for LCT. Clinical faculty need to know how to identify student readiness and maturity before introducing any new change in instructional approach (Klunklin et al., 2010). Many evidence-based LCT methods could be incorporated into clinical teaching if there are guidelines on how to introduce them into teaching, particularly in a system that is transitioning from traditional teaching.

### 5.1. Recommendations

Implementing LCT in a practice setting has some barriers which are primarily related to a lack of understanding of the meaning of LCT in a clinical environment. The shift from traditional teacher-centred education to LCT is a paradigm shift in nursing in which, according to Fullan and Miles (1992), “the management of educational reform goes best when it is carried out by a cross-role group (faculty, department heads, administrators, and students)” (p. 751). It is essential for everyone to take the initiative, and work collaboratively in addressing issues and barriers that could impede the process of transitioning from the teacher-centred mode of nursing to the innovative LCT model.

The successful implementation of LCT requires that administrators, nurses, students, and CNF develop a strategic plan that outlines an educational philosophy and collaborative plan about best practices within clinical education. Active collaboration between managers/directors in practice settings and faculty administrators is essential to introduce and facilitate LCT among nursing students. Faculty development workshops, seminars, and programs are also recommended to empower CNFs. An informal and formal professional support system, such as peer mentorship, would also be helpful for CNFs in their teaching roles. The authors further recommend the following research to be conducted: a concept analysis to address the ambiguity of LCT, an exploration of nursing students' lived experience of LCT in practice settings, and a longitudinal study examining the long-term outcomes of LCT among new nursing graduates.

### 6. Conclusion

This phenomenological study found that CNFs assigned various meanings to LCT which were influential to how they incorporated LCT in their practice. This study adds new knowledge about barriers in the practice setting which impede the implementation of LCT. These findings uncover a need to educate students, nursing staff, and CNFs about LCT. Providing educational workshops and peer mentorship may facilitate the ability of clinical faculty to incorporate LCT in practice settings. While LCT may have numerous benefits for student learning, the identified barriers may prevent successful incorporation of LCT in practice settings. For these reasons, a collaborative effort between nursing faculty and administrators for a mechanism it is imperative for the nursing faculty and administrators to engage in open dialogue about issues that impede the incorporation of LCT.

### References

- Avdal, E.U., 2012. The effect of self-directed learning abilities of student nurses on success in turkey. *Nurse Educ. Today* 33 (8), 838–841. <http://dx.doi.org/10.1016/j.nedt.2012.02.006>.
- Benner, P., Sutphen, M., Leonard, V., Day, L., 2010. *Educating Nurses: A Call for Radical Transformation*. Jossey-Bass, San Francisco, CA.
- Brown, C.L., 2017. Linking public health nursing competencies and service-learning in a global setting. *Public Health Nurs.* 34 (5), 485–492. <http://dx.doi.org/10.1111/phn.12330>.
- Chan, Z.C.Y., 2013. Exploring creativity and critical thinking in traditional and innovative problem-based learning groups. *J. Clin. Nurs.* 22 (15), 2298–2307. <http://dx.doi.org/10.1111/jocn.12186>.
- Cheng, C., Liou, S., Tsai, H., Chang, C., 2013. The effects of team-based learning on learning behaviors in the maternal-child nursing course. *Nurse Educ. Today* 34 (1), 25–30. <http://dx.doi.org/10.1016/j.nedt.2013.03.013>.
- Colley, S.L., 2012. Implementing a change to a learner-centred philosophy in a school of nursing: faculty perceptions. *Nurs. Educ. Perspect.* 33 (4), 229–233.
- Cui, C., Li, Y., Geng, D., Zhang, H., Jin, C., 2018. The Effectiveness of Evidence-based Nursing on Development of Nursing Students' Critical Thinking: A Meta-analysis. <http://dx.doi.org/10.1016/j.nedt.2018.02.036>.
- Damschroder, L.J., Aron, D.C., Keith, R.E., Kirsh, S.R., Alexander, J.A., Lowery, J.C., 2009. Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implement. Sci.* 4 (1). <http://dx.doi.org/10.1186/1748-5908-4-50>.
- Darbyshire, P., McKenna, L., 2013. Nursing's crisis of care: what part does nursing education own? *Nurse Educ. Today* 33 (4), 305–307. <http://dx.doi.org/10.1016/j.nedt.2013.03.002>.
- Finlay, L., 2014. Engaging phenomenological analysis. *Qual. Res. Psychol.* 11 (2), 121–141. <http://dx.doi.org/10.1080/14780887.2013.807899>.
- Fullan, M.G., 1991. *The New Meaning of Educational Change*. Faculty College Press, New York, NY.
- Fullan, M.G., Miles, M.B., 1992. Getting reform right: what works and what doesn't. *Phi Delta Kappan* 73 (10), 744–752. Retrieved from. <http://umlib.umd.edu/oclc/login?url=https://search.proquest-com.umlib.umd.edu/docview/62951005?accountid=14569>.
- Greer, A.G., Pokorny, M., Clay, M.C., Brown, S., Steele, L., 2010. Learner-centred characteristics of nurse educators. *Int. J. Nurs. Educ. Scholarsh.* 7 (1), 1–15. <http://dx.doi.org/10.2202/1548-923X.1710>.
- Institute of Medicine, 2011. *The Future of Nursing: Leading Change, Advancing Health*. The National Academies Press, Washington, DC.
- Jeffries, P.R., Rew, S., Cramer, J.M., 2002. A comparison of student-centred versus traditional methods of teaching basic nursing skills in a learning laboratory. *Nurs. Health Care Perspect.* 23 (1), 14–X.
- Klunklin, A., Viseskul, N., Sripananapan, A., Turale, S., 2010. Readiness for self-directed learning among nursing students in Thailand. *Nurs. Health Sci.* 12 (2), 177–181.
- Lapkin, S., Levett-Jones, T., Bellchambers, H., Fernandez, R., 2010. Effectiveness of patient simulation manikins in teaching clinical reasoning skills to undergraduate nursing students: a systematic review. *Clin. Simul. Nurs.* 6 (6), e207–e222. <http://dx.doi.org/10.1016/j.ecns.2010.05.005>.
- Lekalakala-Mokgele, E., 2010. Facilitation in problem-based learning: experiencing the locus of control. *Nurse Educ. Today* 30 (7), 638–642. <http://dx.doi.org/10.1016/j.nedt.2009.12.017>.
- Qhobela, M., Kolitsoe Moru, E., 2014. Examining secondary school physics faculty' beliefs about teaching and classroom practices in Lesotho as a foundation for professional development. *Int. J. Sci. Math. Educ.* 12 (6), 1367–1392. <http://dx.doi.org/10.1007/s10763-013-9445-5>.
- Raterink, G., 2012. Problem-based learning: a tool for preceptors in clinical practice. *J. Nurs. Pract.* 8 (9), e29–e35. <http://dx.doi.org/10.1016/j.nurpra.2012.06.007>.
- Rideout, E., England-Oxford, V., Brown, B., Fothergill-Bourbonnais, F., Ingram, C., Benson, G., Coates, A., 2002. A comparison of problem-based and conventional curricula in nursing education. *Adv. Health Sci. Educ.* 7 (1), 3–17.
- Sever, D., Küçükylmaz, E.A., Sağlam, M., Güven, M., 2010. Faculty Candidates' Opinions About Student Resistance. <http://dx.doi.org/10.1016/j.sbspro.2010.03.738>.
- Stanley, M.J., Dougherty, J.P., 2010. A paradigm shift in nursing education: a new model. *Nurs. Educ. Perspect.* 31 (6), 378–380. <http://dx.doi.org/10.1043/1536-5026-31.6.378>.
- Sun, J., Liu, J., Wu, Y., Li, S., 2014. The effects of the student-centered clinical nursing practice mode based on the action research for clinical practicum of undergraduate students in Beijing, China. *Procedia. Soc. Behav. Sci.* 141, 839–845. <http://dx.doi.org/10.1016/j.sbspro.2014.05.146>.
- Weimer, M., 2013. *Learner-centred Teaching: Five Key Changes to Practice*, 2nd edition. John Wiley & Sons, Somerset, NJ.
- Western & North-Western Region Canadian Association of Schools of Nursing [WNRWCASN] Conference, 2015. Responding to the Call: Nursing Education and Health Care Reform Strategies for Action. [http://www.cotr.bc.ca/WNRWCASN/cotr\\_web.asp?IDNumber=165](http://www.cotr.bc.ca/WNRWCASN/cotr_web.asp?IDNumber=165).
- Wiltsey Stirman, S., Kimberley, J., Cook, N., Calloway, A., Castro, F., Charns, M., 2012. The sustainability of new programs and innovations: a review of the empirical literature and recommendations for future research. *Implement. Sci.* 7 (1). <http://dx.doi.org/10.1186/1748-5908-7-17>.