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What It Is and Is Not: Pedagogy in Online Nursing Education Delivery

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Abstract

Nursing has employed distance education for decades. In the 21st century, distance programs have often been delivered online. This became even more prevalent since the COVID-19 pandemic. Despite the preponderance of online nursing courses, the delivery of courses virtually does not necessarily mean that these offerings are intentionally developed online education. We discuss a secondary analysis of data examining the formation of online nursing programs at Athabasca University. This historical inquiry used interpretive description of the pedagogy, both learning strategies and the theories that substantiate the strategies, using thematic analysis. Participants discussed their theoretical substantiation of online education. We posit that online nursing education involves a purposeful pedagogy including theoretical bases and would benefit from a strong sense of mission behind the course delivery. Findings from this study may apply to online programs, irrespective of profession or discipline.

Keywords: nursing education, online delivery, pedagogy, post-licensure programs

What It Is and Is Not: Pedagogy in Online Nursing Education Delivery

Distance education (DE) in nursing has been delivered for decades (Billings, 2007). Online learning through the Internet has become a common way of delivering education, particularly since the World Health Organization (WHO) declared COVID-19 a pandemic in March 2020 (WHO, 2022). At that time, post-secondary institutions needed to quickly pivot to the online delivery of previously face-to-face courses and programs. With the presence of online learning in nursing, it is not surprising that there are many studies examining how online delivery has been offered, both within the context of non-pandemic living (e.g., Johnson, 2008; Legg et al., 2009; Peck et al., 2021), and within the COVID-19 pandemic (Howe et al., 2021; Hu et al., 2022; Manakatt et al., 2021; Oducado & Soriano, 2021; Vuttanon et al., 2021). We posit that within nursing literature, educational strategies may be presented about online delivery, but there is still misunderstanding regarding what deliberate or planned online education is and is not.

Further, there is often a lack of depth in understanding and describing the associated pedagogy. Pedagogy has been defined as “the theory of teaching . . . [and] involves the complex relationship between philosophical concepts and practical actions” (Wang & Huang, 2018, p. 261). Although the term pedagogy originally referred to principles in teaching children, and andragogy the education of adults (Knowles, 1984), within dictionary definitions (e.g., Online Oxford Dictionary, Cambridge Online Dictionary) the term pedagogy is commonly used in describing teaching/learning strategies irrespective of age. As such, we will use pedagogy. Within nursing literature about online delivery, the use of theory to substantiate practical actions is often missing or lacking a fulsome description.

It may be useful also, to define the terms distance, online, virtual, and remote learning. Distance education encompasses different forms of teaching, such as courses delivered online (Ryan et al., 2004). However, distance education is larger, as it is a system of teaching and learning rather than the focus on technology (Ives & Walsh, 2021). Remote learning involves moving face-to-face learning temporarily online (TeachThought, 2022). Virtual learning, such as an online course, is delivered via computer; however, according to Winstead (2022), virtual learning may be more interactive than courses delivered online.

This article describes a secondary look at data within our study, which examined the formation of online nursing programs at Athabasca University, a large international open and online university based in Athabasca, Alberta, Canada. We first describe how online delivery of nursing education is addressed in the literature. Then, we briefly outline our ongoing study examining the formation of online nursing programs for Licensed Practical Nurses (LPN), to Baccalaureate-prepared Nurses (BN) and Registered Nurses (RNs), to degreed nurses. This brief description is intended to give a background to the secondary analysis of our interviews pertaining to mission and pedagogy that underscores online education. Within the discussion, we distinguish between online course delivery and online nursing education. We hypothesize the importance of strong pedagogy and mission to substantiate online education. Findings from this study may be applicable beyond nursing to online programs from other professions or disciplines.

Literature Review

How Online Nursing Education is Addressed Within the Literature

The literature includes a preponderance of articles/studies that have addressed the benefits of and barriers to online delivery of content. Benefits to online nursing course delivery included accessibility, flexibility, and control (Baruth et al., 2021; Bramer, 2020; Peck et al., 2021; Plowman et al., 2017) for students and instructors. Also, students did not lose time through commuting to institutions (Talbert, 2009). These benefits were particularly salient for adult students who were working and had families (Hart & Morgan, 2010; Plowman et al., 2017), or who lived in rural locales far from educational institutions (Riley & Schmidt, 2016). Barriers included challenges related to technology/Internet use (Baruth et al., 2021; Buckley, 2003; Johnson, 2008; Nikpeyma et al., 2021; Ryan et al., 2005; Uprichard, 2020) for both students and instructors. Students who had difficulty with motivation or organization may have also struggled if the course delivery was asynchronous (e.g., Bramer, 2020; Iheduru-Anderson, 2021). Instructors who loved lecturing and face-to-face teaching may have struggled moving from didactic teaching to the facilitator role (e.g., Johnson, 2008; Sword, 2012).

Many authors described online learning within the contexts of single course delivery (e.g., Manakatt et al., 2021; Shuster et al., 2003), graduate online education (e.g., Harlan et al., 2021; Tiedt et al., 2021), or continuing education for working nurses (Nadeau et al., 2020; Riley & Schmidt, 2016). A number of recent studies addressed the move to online learning because of the COVID-19 pandemic (e.g., Bowser et al., 2022; Manakatt et al., 2021; Oducado & Soriano, 2021; Vuttanon et al., 2022). Further, while some authors discussed pedagogical considerations—in terms of strategies for teaching online—the theoretical substantiation and framework that has guided the formation of what and how teaching and learning were experienced, was most often missing. Notable exceptions include the work of Camacho et al. (2016) who focused on the role of tutors as pedagogical mediators who continually reflected upon knowledge construction with the learners. This coincides well with the discussion of Legg et al. (2009) and Edwards et al. (2011) regarding constructivist strategies. Edwards and colleagues (2011) also discussed the community of inquiry model (Garrison et al., 2001) for guiding the development of online education. One study examined the community of inquiry model in guiding the use of asynchronous discussion boards and was an interprofessional study with nursing as one of the eight professionals involved (Evans et al., 2020). A more fulsome discussion of theories involved in pedagogical strategies will follow in the forthcoming discussion section.

Brief Overview of Common Frameworks for Organizing Online Content

Common frameworks used to address content delivery have included the community of inquiry (Garrison et al., 2000), and constructivist approaches. The community of inquiry model included three major components: social presence, cognitive presence, and teaching presence. The educational experience is situated in the area where the three components (represented by circles) overlapped (Garrison et al., 2000). When education is delivered online, social presence (where students feel connected to peers and the instructor) and teaching presence (as demonstrated in the design of the course), and facilitation of social and cognitive processes results in meaningful learning (Anderson et al., 2001).

Constructivist theories have focused on building upon the pre-existing knowledge that students bring to a course (Melrose et al., 2013). This occurs through meaningful learning activities, and the instructor getting to know students in order to understand how they interpret and learn knowledge. Constructing meaning is part of knowledge acquisition (Melrose et al., 2013).

Research Method

Background

The overarching purpose of this qualitative study guided by historical inquiry was to capture how online nursing education has been conceived and developed in Canada, with Athabasca University programs being the primary focus. The undergraduate programs (i.e., RN to BN, and LPN to BN) offered through Athabasca University constitute some of the first online undergraduate programs in Canada and North America, incorporating theory around distance education with delivery provided by the Internet. Conceptualized in the early 1990s by an innovative group of nursing educators, the BN bridging programs have grown to become some of the largest programs in Canada and internationally. It should be noted that the undergraduate program that provides BN education to LPNs also involves face-to-face clinical, with the bulk of the education program delivered online.

Ethics and Data Collection

Ethical approval was received from Athabasca University for the primary data collection (No. 24332). Semi-structured interviews (see Table 1) were conducted with 17 participants selected through purposive sampling. Data collection occurred between September 2021 to September 2022 and was carried out through online interviews (MSTeams or Zoom) or via phone, with follow-up e-mail for clarification or explanatory purposes (with permission from participants). Participants included nine current or former faculty members (nursing), three former/current non-nursing faculty at Athabasca University, one nursing tutor, two administrators (one current and one former), and two instructional design experts within the Faculty of Health Disciplines (including nursing) at Athabasca University.

Table 1

Semi-Structured Questions for Interviews

Question number	Question content
a.	Can you tell me about your relationship with Athabasca University? Can you give me a background for yourself and how you came into nursing and Athabasca University?
b.	What is your understanding about the early days of nursing education in Canada? How did the internet (World Wide Web) come to be viewed as a possible means of education for nurses?
c.	What was your role in the nursing education programs developed at Athabasca University? Can you talk about the development of these specific programs?
d.	Who were key players in bringing nursing education online at Athabasca University? Did they come from other institutions and how were these conversations started?
e.	What were important barriers to developing online nursing education? What did people say? Was there pushback from the education community? University? Nursing profession?
f.	How did your roles in the development of virtual nursing education change? Why? What factors were in play in these early years?
g.	What pedagogy/philosophy underpins your online teaching?
h.	Are there other key players we should talk to? Can you provide their name and contact information?
i.	Where are resources (i.e., hard copies) of early documents located? In personal collections? In the Athabasca University library? Where might we search for more information?
j.	What else should we know about the history of virtual nursing education?

Each of the interviewed participants addressed their involvement in the conceptualization and implementation of the undergraduate online programs. In some of these interviews or follow-ups, individuals spoke about pedagogical/philosophical underpinnings that substantiate the strategies used in course and program development. The data collected represents how participants understand pedagogy and theories that underpin the participants' pedagogy for online nursing education.

Participants were invited to be interviewed if they had been involved in the conceptualization of the online nursing programs or if they participated in the implementation of these programs. Fourteen of the participants identified as women and three as men. Almost all of the participants held graduate degrees (Master or PhD); 14 had taught or were teaching when the online nursing programs were conceptualized or rolled out. At the time data was collected, six participants were retired.

Data Analysis

Data analysis occurred through line-by-line reading and re-reading transcripts by both members of the research team. We asked: what is the pedagogy that informs your online teaching? Interpretive description, as the framework for this historical inquiry, allows for additional questions to be posed based on the expertise of the interviewee and the specific information gaps or knowledge the researchers are attempting to acquire (Thorne, 2016). Themes regarding the pedagogy of online education, in particular, those related to the theoretical underpinnings, were considered and discussed. If there were questions about the accuracy of interpretation, the first author contacted the participant and clarified the discrepancy to protect the trustworthiness of the findings (Woo, 2019).

Findings

The findings of this secondary analysis of data included the following themes: (a) what constitutes and does not constitute online learning, (b) the importance of the mission, and (c) the pedagogies to underpin online education.

What Does and Does Not Constitute Online Learning?

Participants spoke about what is online learning, and what it is not. Misconceptions about online delivery includes what constitutes online education. It does not mean that students receive the same lectures they would within a university classroom, but instead, learn the prescribed material online. “You know, you’re not doing online education, you’re doing remote delivery. So, there’s a difference. They’re still trying to do their three-hour lecture online. So that’s remote delivery. That’s very different from specifically designed online learning” (Participant 6).

Because a lot of teachers (are) saying . . . that online learning is face-to-face through a machine, it’s rotating classroom on the machine, but that’s not online learning. . . . And basically, it’s how to use Zoom. You know, it’s not online learning in all its complexity, it’s really sad. (Participant 8)

Both participants (6, 8) noted that learning online is different from lecturing online and one described that approach as remote delivery. One participant also spoke about misconceptions about the value of online teaching.

Now, there was always that sort of ho hum, online learning is not as good as face-to-face learning. You know, for years that was in the background. Yeah. But we all knew was better. We all knew was better. So yeah, was better for the students. The students loved it as much as we did. (Participant 11)

How does online education actually differ from online delivery of information? Designing online education, according to the participants, involved greater complexity and multiple interactions/relationships.

So we were the first people to talk about, you know, the course needs to connect students with a teacher with each other and with the material. So, the community of inquiry model was out. Yeah,

when we started the Master of Health Studies. So, we looked a lot to that. Terry Anderson . . . was one of the original authors of the community of inquiry model. . . . And we incorporated that in all of our course design. (Participant 6)

Interaction that is a normal and required part of distance education at the university level, in the way we define it requires interaction and interactivity. Interaction with other people and interactivity with content and activities and so on. . . . So, taking the content from a study guide and transforming it digitally so that it fits into a learning management system but not allowing for group work or communication or discussions whatever, is not really online. (Participant 15)

Delivering online education, particularly when the Internet was new, involved designing the courses according to the technology that students had. So we really, if we're going to use video, we had to make sure it was very small and very tightly compressed, which meant that it was kind of grainy and postage stamp sized. It meant that the technology was still going to catch up to us—had to catch up to us for a while—before we get started to do you know more of the multimedia. (Participant 7)

The Importance of Mission

Participants spoke about the mission of Athabasca University—to deliver education to students who otherwise might not be able to attend university due to barriers such as access issues (living in rural areas) or working full-time with children. They noted that there was excitement when the decision was made to go online (Participants 1, 4) and that this was “innovative” (Participant 10) and “pivotal” (Participant 5). Online education would further facilitate the mission of Athabasca University, to provide education to individuals who might not otherwise be able to pursue further education (Participant 12). This mission was embedded in the speech and enthusiasm of participants. One participant, when speaking about this mission stated, “but I was so proud of being a member of Athabasca University because I was absolutely convinced completely and never questioned, that we weren't doing something critical. Something that gave people the opportunity to pursue additional education” (Participant 2). Another participant spoke about how this mission had the potential to change the lives of individuals with disabilities. She noted how she has taught students with extreme disabilities. In speaking of one student who is quadriplegic and completed a master's degree, she said, “And he is in a nursing home . . . he works with voice recognition technology and had (a) mouse, and is a great student, you know, he was inspirational. He worked really hard” (Participant 13). This mission also brings meaning and purpose to educators. As one participant noted,

And I thought, yeah, that it really, gives me purpose and meaning in my work. . . . So but I think that mission always, was there in our minds, as we're thinking about new ways of offering the courses, new ways of, you know, revising the courses to make them more accessible to everybody and more meaningful to all of our students. (Participant 5)

Interestingly, the move to online nursing education should not occur just because the technology facilitates this (Participants 5, 6, 10). The emphasis should always be focused on the beneficial impact upon students. “I hope you're not, you're not moving with the technology for technology's sake. You're moving with the technology for the client's sake. Like you should be. Right” (Participant 10).

And I think one of my ongoing messages is that there's no right way and a wrong way. But what we're looking at here is an option for people who need this option or like this option. So this option is not for everybody. And there are people who should not do online learning. (Participant 6)

For instance, online education can not only help those who are disabled, it can reveal disabilities in students that were previously not as obvious.

But there were people who didn't appear disabled . . . people who are what we call print disabled. People who weren't good readers, or who were dyslexic. A lot of hidden disabilities became visible disabilities in an online environment. (Participant 13)

Also, some educators may not understand the pedagogy behind online education. As one participant noted,

While a lot of distance educators are practitioners, they may not be academics; They may not be grounded in the theory and practice of distance education which really goes back to the 70s. And some of the early thinkers about distance education are not understood or known by current practitioners of online education. (Participant 15)

As noted by this participant, educators may largely be practitioners, and not have a strong background in online education. Even if educators have some experience with and knowledge of online education, they may not know how online pedagogy developed or what it addresses.

Pedagogies That Underpin Online Education

According to participants, the presence of pedagogy in the construction of online courses, as well as the knowledge and skill of educators in practicing this pedagogy with their students, is crucial (Participants 5, 6, 7, 8, 10, 15, 16, 17). The community of inquiry model was mentioned by several participants as their underlying pedagogy (6, 15, 16). This model, introduced in 2001 (Garrison et al.) substantiated the focus and strategies to foster connectivity with students and the instructor, students with each other, and students with the content. As noted by the participant below, the educator facilitates contact with the students and attempts to promote their engagement with course material.

So I firmly believe that interaction which is the basis of the community of inquiry. . . . As a facilitator of online learning, one of my roles is to encourage their engagement of the course materials . . . through a phone call . . . you need to be present with the student so it facilitates their engagement with the online environment. (Participant 16)

Others spoke about constructivism (Participants 15, 16, 17), andragogy (Knowles, 1984), invitational theory (Participant 5), or nurse educator Virginia Henderson (Participant 2) as influencing their pedagogy for online education. The participants were thoughtful and purposeful in how they described the pedagogy that supports their online teaching. For instance, Participant 5 discussed the tenets of invitational theory (IT) and how these impacted how she engaged in online teaching.

I think that IT applies to all teaching and learning situations, but it is especially important online. The five tenets of IT are trust, respect, intentionality, optimism, and care. As I teach and design online courses, I try to be very deliberate using strategies and interactions that support these tenets.

This participant also shared how these tenets are enacted in her relationship with students, but also, how it is difficult to develop relationships in online education.

For example, how do I establish mutual trust and respect—it begins by spending time in getting to know learners and inviting them to know me. This foundation is so important to learning and it can be a little more challenging online if you do not have those more informal interactions that allow the personality (and evidence that you care) shine through. (Participant 5)

Importantly, theories that underpin online education pedagogy should be congruent with life philosophies held by educators (Participants 5, 17). “Obviously if philosophy is our worldview . . . then philosophy will influence our pedagogy and we’re quite likely going to pick strategies approaches and methods and ways of doing things that fit with the way of looking at the world” (Participant 17). “I think your philosophy (values, etc.) is your blueprint for all your actions and interactions in life. Your teaching philosophy has to align with your personal philosophy so you can become real to online learners” (Participant 5).

Both of these online educators acknowledged the importance of our world views/philosophies being in alignment with the strategies/theories (pedagogy) on online teaching. Participant 5 noted that if an educator’s overall philosophies of life are not congruent with their online pedagogy, they will not be authentic.

Discussion

Within nursing literature, online course delivery appears to have been considered as online education. As noted by the participants, remote delivery is not online education. Online education involves understanding and utilizing purpose-specific pedagogy. As noted by Brown (2019), the term pedagogy is a messy term that has many interpretations, some focused on the practices of education, and others on the theories that drive that practice. However, educators often focused on strategies or practices, without an understanding of the theories that substantiate these practices (Brown, 2019). Educators should be aware of the theories that undergird their practice and apply them intentionally, otherwise they may replicate the same modes of teaching that they received as students (Brown, 2019). Also, they need to understand their own theoretical/philosophical background, otherwise they will not be effective with their students (Wang & Kania-Gosche, 2011). Further, good course design cannot seamlessly create strong theory-based practice in educators. As noted by Howe et al. (2021), even when there is deliberate course planning by developers that includes a theoretical basis for the activities, nurse educators may not recognize this, and the nuances of effective online delivery may be missed.

Interesting, a couple of nurse educators mentioned that they used nursing theory to guide their work. One noted drawing upon the work of nurse theorist Virginia Henderson (Participant 2). Another (Participant 5)

spoke about how caring (as a fundamental aspect of nursing) can be communicated through online teaching, although this can be more challenging. Within the undergraduate nursing programs at Athabasca University, one theorist is not preferred over another. This may be why educators did not refer to a specific nurse theorist as having influenced their nursing online education.

Within nursing literature, there is limited evidence of the theoretical underpinnings (as part of pedagogy) of online education. At times, constructivism has been noted, such as when Camacho et al. (2016) took this approach to describe the role of educators being pedagogical mediators. As pedagogical mediators, educators need to reflect on their role of mediating knowledge with students through communication and interaction with resources (Camacho et al., 2016). When others have used constructivism, this was in relation to the course content (cultural competence), rather than online education (Hunter & Krantz, 2010), or, was briefly mentioned as part of the pedagogy, but a fulsome discussion was not offered (Georgsson, 2019; Matlakala et al., 2019; Smith & Kennedy, 2020). The community of inquiry model (Smadi et al., 2021) or andragogy (Smith & Kennedy, 2020) have also been mentioned. Caring as a nursing pedagogy was applied to online education in response to COVID-19 in one study (Christopher et al., 2020). While others use the term pedagogy (e.g., Ryan et al., 2004), the theories or tenets that underline the strategies are missing, even when aspects, such as social presence (e.g., Cobb, 2011) are part of the theoretical tenets. Online educators, irrespective of profession, must be clear about the pedagogy that guides their practice; if they do understand the theoretical foundation for their strategies in online education, they are encouraged to share their understanding and application through publication.

If post-secondary institutions are delivering a post-licensure degree in nursing (post LPN to BN or RN to BN or graduate nursing programs), it may be useful to adopt a mission statement or strong guiding statements for the program(s). Our rationale is this: participants spoke with enthusiasm about how the mission of Athabasca University “dedicated to the removal of barriers that restrict access to and success in university-level study and to increasing equality of educational opportunities for adult learners worldwide” (Athabasca University, 2023, “Our mission” section, para. 1) gave them purpose and meaning in their work. Working with students in the online, virtual environment was not viewed as second best, but rather, significant, and life-changing for students.

Online education may have been seen as less effective than face-to-face; however, the evidence gathered from the educators interviewed in this study suggest otherwise. Online education may be more impactful and may result in deeper levels of thinking in the students than face-to-face. This is because students provide written rather than verbal responses; as such, they need to think about how they will present their ideas and what they really want to communicate (Esani, 2010; Porter et al., 2020). Other research has determined that there is no significant difference in learning for online students as compared to face-to-face learners (Abuatiq et al., 2017; Zucker & Asselin, 2003).

Recommendations

Although nursing education has been delivered across distances for many years, the pedagogy has not kept up with the delivery. Throughout the literature, theoretical frameworks are lacking (Aydemir et al., 2015). This is not just nursing; it may also be the predicament found in other professions and disciplines. As mentioned in the discussion, educators need to be able to verbalize the theoretical rationale for how they

conduct online education. Why is this so important? We posit several reasons. First, educators who can discuss the theoretical elements of pedagogy may be more intentional about how they teach online. Strategies to promote an atmosphere of community amongst the students, educator, and resources—grounded in theory—may invite educators to spend the time and effort in creating a welcoming and facilitative environment (Shovein et al., 2005). Second, educators should be able to address the theoretical rationale for their actions, not just in clinical practice, but also in education (Wang & Kania-Gosche, 2011). Third, if educational institutions are moving towards more blended course delivery than in the past (pre-COVID-19), greater emphasis on online education should include a solid pedagogical foundation and a mission statement that encompasses this form of delivery. This will be particularly important for programs that are largely online, for example, RN to BN programs. As noted in this study, a mission statement that includes providing education to students who might not otherwise receive university education (or something comparable) is extremely motivating for educators and bolsters the perceived importance of this modality of education.

As the literature has attested, instructional design experts are extremely important, not just for technological issues with online courses (e.g., Ives & Walsh, 2021; Jones & Wolf, 2010; Richter & Schuessler, 2019; Ryan et al., 2005), but also, to build in course design and activities that reflect the educators' theoretical foundation. They should be present in the planning of courses and discussions about curriculum design. Further, programs that increasingly use online courses would benefit from collaboration with distance/online specific educators about how to deliver online education that is impactful for their learners.

Clarity in terms regarding what is distance learning/education, online learning/education, e-learning, and virtual learning would be helpful. While they may be assumed to be similar, as we have elucidated in this article, this is not necessarily the case.

Conclusion

Online course delivery is an important part of nursing education. However, remote or virtual course delivery does not ensure that this is true, purpose-built online education. Pedagogy—particularly the theoretical basis—is often missing from discussions about online delivery in nursing literature. We suggest that this is a significant omission that not only impacts educators, but also students, regardless of the profession or discipline. As online education is becoming more common, explicating pedagogy and the theory that underlies this delivery mode is crucial.

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