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Paradigm Shift in Spinal Cord Injury Rehabilitation Education Delivery: From Nurse to Peer

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Abstract

Nurse educators expressed uneasiness and reluctance when rehabilitation hospital's strategic objectives focused on increasing person centered care by promoting chronic disease self-management approaches that included peer delivery of group education classes for persons with spinal cord injury. Conventional self-care group education classes delivered by nurse educators were changed to interactive designs led by peer mentors. While peers assumed the lead in classroom education delivery, nurses continued to play important roles in program development and evaluation and in the provision of medical expertise as it was needed during classes.

After witnessing immediate and dramatic improvements in patient engagement during class, nurses became more comfortable with the process. Initial reluctance and perceptions of threats to nursing practice have turned to advocacy of peer-to-peer learning within the hospital setting. We discuss the paradigm shift required of nurse educators to enable this change to the CDSM peer-led approach and the evolution of nursing response to such shifts that challenge established norms in nurse-led education.

Keywords: Rehabilitation; Spinal cord injuries; Peer group; Education; Mentoring

Abbreviations

SCI: Spinal Cord Injury; CDSM: Chronic Disease Self-Management

Introduction

Traumatic Spinal Cord Injury (SCI) is life-threatening and can result in significant functional limitations [1]. Inpatient and post-acute rehabilitation are the standard of care for SCI survivors. However, even after intensive rehabilitation, many individuals will need ongoing support to accommodate functional limitations and to treat or prevent a variety of secondary conditions (e.g., pressure injuries, urinary tract infections, respiratory problems, neuropathic pain, depression) that often lead to rehospitalization [2]. Thus, a major goal of treatment is imparting the knowledge and skills needed for effective (self-) management of care needs [3,4].

Nurses view patient education as one of their primary roles in patient care [5,6]. In SCI rehabilitation, an important focus of patient education is management of self-care needs, such as bowel, bladder, and skin, with the goal of preventing rehospitalization [7]. Recently patient hospital stays have shortened [8,9]. Which decreases the time nurses have to provide education, and there has been a shift in focus in healthcare systems toward patient centered care [10-12]. Within these changing practice environments, nurses are exploring multiple theoretically-based approaches to education.

Transformative learning is a key concept to explain the process by which adults change, or transform, how they think about their lives as they encounter new challenges [13,14]. It is similar conceptually to response shift theory – a change over time in internal standards, beliefs, or values (e.g., health-related quality of life) – that is commonly seen in individuals with chronic illness [15]. Both refer to an in-depth personal change in perspective that is necessary to regain meaning in life after a life-altering event, such as traumatic injury.

Mezirow points out that, when confronted with a challenging event (e.g., disabling health condition), an individual tries to make sense of the event using his or her habitual ways of thinking and realizes that these ways no longer work [13]. Transformative learning has been applied to SCI rehabilitation by Carpenter to engage patients where they are in the process of adapting to their new life [16]. Response shift and transformative learning theory emphasize the importance of readiness for change to the learning process, without which the acquisition of new knowledge and skills may be impeded [15].

May et al., report patient engagement as a fundamental premise of learning [17]. They surmised that as patient engagement increases, readiness to learn and moving towards independence also increases. Multiple reports also suggest that the use of humor is beneficial in classroom learning and, when used skillfully, can establish positive learning environments and be effective in learning retention [18-20].

Additionally, there is ample evidence of the effectiveness of peer-led self-management training of chronic illness. The best-researched transformative learning intervention that incorporates peer-to-peer learning and reverse classroom models is the Stanford Chronic Disease Self-Management program (CDSM) developed by Lorig and colleagues. Studies have demonstrated that CDSM enhances participants' abilities to perform self-management tasks associated with chronic illness, thereby improving functional health

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outcomes and reducing hospitalizations [21-26]. People learn more and try harder when they learn from people they perceive to be like themselves, managing similar circumstances [23,25-27]. Peer interactions provide an effective context for modeling because peers are seen as relevant [28-32].

Considering these learning styles, teaching goals should be short term and realistic, not much beyond what the learner believes he/she can realistically accomplish. Lorig emphasizes that reducing class content into chunks that are small enough to be assimilated in one class session is important to success of the reverse classroom model. As the term implies, the reverse classroom involves "flipping" the classroom and outside learning activities. At its most basic, students watch pre-recorded lectures outside of class and class time is used for application of knowledge, small group work, directed problem solving, individualized instruction, or discussion. It reduces cognitive overload and aids student mastery.

Class or one-to-one instruction time can be further devoted to modeling and demonstration of the new task or skill with performance feedback and problem-solving scenarios that involve application of new knowledge to a novel, "what-if" situation. This focus on teaching what the patient/learner needs to know is also in line with Patient Centered Outcomes Research Institute (PCORI) [33] initiatives as it emphasizes what is most important to the patient [34].

The current paper focuses on the role and paradigm shift required of nurse educators to enable a change in traditional education to the CDSM approach that uses peer mentors as educators in providing self-care education classes to persons with SCI. We discuss the evolution of nursing response to such shifts that challenge established norms in nurse-led education.

Methods

Settings/Participants

The study was conducted in a free-standing, non-profit hospital specializing in comprehensive medical rehabilitation for persons with brain and spinal injuries.

Participants include 5 nurse educators responsible for provision of self-care education for patients with SCI, including assessment of patient readiness to learn and appropriateness to participate in group education classes, assignment of patients to classes, and monitoring class attendance. Three of the 5 participating nurses were involved with patient education 1 year prior to (January 1, 2014 – January 1, 2015), during (January 1, 2015-April 30, 2015), and 1-2 years after (April 30, 2015-April 30, 2017) the shift to CDSM peer-led education initiatives. Two of the 3 nurses resigned their positions in the 24-48 month post implementation period and 2 new nurse educators were hired; hence, these 2 nurses provide perspectives on an established peer-led education program.

Design

Conventional nurse-led self-care education classes were revised and modeled on the peer-led CDSM approach [22,23,25,26] in a step-wise fashion over 15 weeks. This article examines the changing role of the nurse educator and their perceptions during this process from serving as a lead educator in group education practices to supporting initiatives that allow peers to lead group classes.

Conventional classes

Historically, group education classes were presented in didactic formats with PowerPoint-aided lectures by the nurse followed by a question and answer period with patients. Classes focused on physiologic functioning before SCI, changes that occur with SCI, and options for management of those changes. The nurse educators designed this approach based on what they learned to be important during their educational training and clinical experience.

Each of six conventional patient education classes was scheduled for one hour every two weeks. Patients were scheduled to attend as their rehabilitation schedule allowed and after the nurse educators deemed the patient appropriate to attend group classes. This approach accommodated inclusion of education classes within busy therapy and personal care schedules. If scheduled education class time was needed for therapy or counseling, the class was "bumped," which necessitated rescheduling.

As part of organizational enhancements to promote patient-centered care initiatives, nurse educators were instructed to make changes to education delivery using CDSM modalities.

CDSM approach

Dr. Lorig provided on-site training to review the CDSM approach to education that strives to improve participants' abilities to manage chronic conditions and rely less on the healthcare system. She stressed that people do not need to know physiologic details in order to manage issues and that a recognition and problem-solving approach may be more beneficial. As an example, she asked our group of clinicians and researchers how many teeth they had; very few could answer the question. However, when she asked the group whether individuals know how to care for their teeth, what early indications of problems might be, and when it was appropriate to seek dental care, all participants could answer accurately. She carried this example forward to patients with SCI and, for example, bladder management. Is it necessary for patients to know the function of bladder, kidneys, brain, etc. involved in waste elimination? Or, is a better educational approach to promote understanding bladder management options, help develop skills to recognize early symptoms of problems (e.g. infection), and develop problem solving strategies?

Dr. Lorig also stressed the peer-to peer approach and questioned nurse educators why nurses, instead of peers, were leading self-care education classes. Nurses believed it was critical that education delivery be provided by trained professionals as patient education is an integral component of nursing practice [35].

Using CDSM theoretical constructs and instructional strategies, as well as Dr. Lorig's teachings, a workgroup of staff educators and former patients explored options to change the conventional patient education program. They identified multiple tasks for improvement initiatives: 1) identify key competencies and learning objectives; 2) incorporate elements of peer-led self-management training; 3) establish a mechanism for assessing and prioritizing patient learning needs and customizing instruction to address those needs; 4) develop discrete instructional modules that chunk content into brief instructional sessions; 5) incorporate reverse classroom and CDSM learning strategies that combine online and face-to-face instruction to optimize learning; and 6) refine the instructional program based

on feedback from participants. Several components of the role of the nurse educator in relation to self-care education classes remained constant: assessing patient readiness to attend group classes, scheduling patients for classes, and monitoring attendance.

Key competencies and learning objectives: Nurse educators constructed classes focused on secondary complications of SCI that are leading causes of hospital readmission: pressure injury, urinary tract infection, and respiratory issues, as well as personal care needs such as bowel management and hydration. Learning objectives for each class included: basic understanding of the topic, ability to describe options for management, ability to recognize early warning signs of potential problems, ability to self-intervene for resolution of identified problems, and understanding of appropriate seeking of medical care. Nurse educators worked with peers so that each learning objective was achieved for each class using interactive designs.

Peer-led self-management training: Nurse educators took leading roles in transforming conventional teaching materials into interactive problem-solving designs that put peers at the center of education delivery. They became 'trainers' for peers to be educators and ensured that essential content would be conveyed in a manner that was 'hospital correct.' Rather than leading group classes, one nurse educator sat in a classroom chair and contributed medical expertise when needed, while allowing the peer to teach each class.

One member of the peer support team was designated as the leader for group class instruction. He contributed 15 years of experience living with SCI and used his 'been there, done that' knowledge of relearning self-care function/needs to enhance education delivery. The nurse educator provided the peer with guidance for how to redirect discussion when a class participant wandered off topic, how to ensure involvement of all class participants, and how to establish an outline in order to cover necessary information in a timely manner.

Assessing and prioritizing patient learning needs and customizing instruction: Nurse educators worked collaboratively with peers to determine how to adapt some conventional content to the CDSM approach and catalog other content, e.g., physiological functioning, on the hospital's education website [36] for patients to access when they desired. Together, nurse educators and peers ensured that clinically appropriate content was included and presented in a way that related to patients in a "this is how we, as people with SCI, manage our self-care needs and associated conditions."

Nurse educators also worked with peers to establish processes that allowed education classes to be patient driven. Peers were instructed to focus on topics of concern expressed by patients in the class. For example, during the bowel management class, three content areas were incorporated into the class: options for bowel management programs, nutrition, and prevention and management of involuntary bowel movements. Peers were encouraged to solicit patient concerns about any of these and cover that information first. Peers also were encouraged to address concerns expressed by patients even if they were not relevant to class content. If a patient asked a question regarding bladder management during bowel management class, peers were taught to address those concerns immediately in order to provide timely feedback when the patient was interested in receiving information and to state that more details would be provided in bladder class.

Discrete instructional modules that chunk content into brief instructional sessions: The 6 one-hour conventional classes were condensed into 4. Nurse educators believed necessary content could be delivered if there was greater regularity in education scheduling. They developed "Education Week" where patients attended self-care education classes Monday through Friday from 11:00-12:00. This allowed patients to progress through self-care classes with the same group of participants and for classes to be structured so that each class would build on content from previous classes. Therapists were instructed to protect "Education Week" for their patients in order for them to complete classes during that time.

Incorporate reverse classroom and CDSM learning strategies: The reverse classroom model suggests that participants prepare for an upcoming class or session by reviewing preliminary materials so that class time can be focused on problem-solving strategies. To facilitate this approach, patients were visited by a peer support staff member and shown an introductory video that would be discussed in a class later in the week. However, when we trialed this approach, we did not find success. When patients arrived to class they did not remember seeing the video or did not realize the relevance to the class. Hence, the reverse classroom model was quickly modified and the introductory material became the first element presented during classes.

Refine the instructional program based on feedback: We first trialed and refined the peer-led approach in the bowel management class. Lessons learned were applied to the remaining self-care education classes– skin management, bladder management, and respiratory/infection control (renamed 'special concerns' with change to peer-led). For example, the introductory video for the bowel class used humor and empathy to convey information regarding what could be considered a sensitive topic that patients often do not wish to discuss. Positive reactions from class participants to the humorous components delivered by peers in the video guided decisions to include humor and empathy in introductory videos for the other classes.

Nurse educators met with the peer leader at the end of each education week to discuss what went well and what could be improved upon in the peer-led class. This fluid approach provided both the nurse and the peer opportunities to evaluate teaching methods and improve on delivery. It ensured that content nurse educators deemed important was incorporated into education provision and it also ensured that the peer perspective was at the forefront of class delivery.

Data collection

A 3-section survey was sent via e-mail to nurse educators two years after all self-care education classes were changed to the peer-led approach and this approach had become standard procedure at the host facility. The 3 nurse educators, who were employed the year prior to the change, during the change, and the year after the change, completed all sections. Section 1 referred to the 1-year prior to changing to peer-led class delivery. It asked each nurse educator to describe patient involvement in self-care education classes, how you (as the nurse educator) felt about allowing peer mentors to deliver education classes, and whether you believed patients would receive lower, same, or better quality of education if delivered by peers.

Table 1: "How did you feel about allowing peer mentors to deliver education classes?" (Truncated Responses).

Conventional classes (3 Nurses)
When I realized they were going to be teaching the classes, I was nervous. I was excited because the patients would get to see life after spinal cord, but did the peers understand medically all spinal cord injuries or would they be biased due to their own circumstances. I remember in nursing, we were discouraged from going into fields of nursing that had affected us personally, because we were told we would not be able to give the best care due to our bias. This is the concern I had about the peers actually teaching.
I was reluctant but intrigued and interested in how that would look and play out in the actual classes. More of a curiousness, at that point in time.
I was not on-board at all! There were many concerns including their lack of clinical knowledge, fear of them missing something important, and the fear of them giving the wrong answer or advice. I also felt that it took away an important part of my job as a nurse educator, a part that I felt was done very well and had been established for many years.
During the 4-month implementation when there was a mix of conventional and peer-Led classes (3 Nurses)
I was ok with this, and knowing an educator would be in each class, made this seem completely do-able. I could still add or offer thoughts, answers, insights around the physio components of the body systems and processes that were affected…..as needed.
I felt good about it. The peers were very open to any medical interjections we had and would answer any questions we had.
It felt like I was losing a part of this job which made me uncomfortable. It created an unsecure feeling.
After change to peer-led classes (5 Nurses)
I think it's great for patients. They learn more through this set-up I think.
I think it is good, very good with regards to the life experience piece they consistently will bring to the table. The content is built now for each class in such a way that the peers have developed a smooth flow in teaching, play off each other when necessary, etc. It works!
I feel like it should continue. Now that I have moved to a different facility, I see this does not happen. It is very special and makes an insurmountable difference in the patients' well-being. I miss it.
*I think that the addition of peers to the education classes has made a huge difference. The value of personal experience has been huge.
*I am all for the peers to continue to lead the education classes because I believe it is incredibly helpful for the patients to hear for their peers instead of a bunch of medical professionals who have not lived with the injury.
*Respondent participated in 'After change to peer-led classes' only

Table 2: "Describe patient involvement in self-care education classes" (Truncated Responses).

Conventional classes (3 Nurses)
Patient involvement was always an issue while I taught classes. Patients would choose not to attend or lack engagement during the classes. Patients were often tired, on medications, or simply did not wish to hear the education I was presenting.
It was a struggle to get all patients involved in class. Some fell asleep and I had to wake them several times during a class. I often had to reschedule because patients would miss class. Patients were less interested in the bowel class. It was rare that a patient would attend all the classes.
When I overheard patients talking about the classes, they often talked about 'gross' pictures presented during skin class or of 'having to go' to the classes.
During the 4-month implementation when there was a mix of conventional and peer-Led classes (3 Nurses)
There was a shift, often subtle, in patient engagement in the attention of focus factor.
The atmosphere definitely changed and attendance increased. Peers were almost like celebrities! Patients wanted to share their stories with the peers and often stayed after class to talk with the peers.
Patients responded differently in the very first class the peers led. It created a very open atmosphere that allowed patients to express their concerns. Patients also had an instant connection with the peer group that gave merit to what was said. The first thing I noticed was that when patients entered the room they circled around the peer rather that lining up in front of the projection screen like they had done when I taught the class.
After change to peer-led classes (5 Nurses)
Patients are much more involved, although different mixes of patients affect the atmosphere.
Once patients come to the first class on Monday, they get the flow/lay of the land so to speak and observed an increased level of interest, a bigger investment in the class week.
The patients are mostly engaged. The peers have a special way that they relate to patients and can laugh and make difficult topics easy to discuss.
*The peers can talk with the patients through all stages of injury; they are knowledgeable not only about their own circumstances but of those they work with and are very comfortable presenting the material to our patients.
*Peer led education is very special and makes an insurmountable difference in the patients' well-being.
*Respondent participated in 'After change to peer-led classes' only.

Section 2 of the survey asked the same questions for the 15-week change period, and Section 3 referred to the 1-year after the change. The two nurse educators who were hired during the 1-2 year post change period were asked to complete only section 3 and describe their experiences with established peer-led education initiatives.

Results

The 5 nurse educators' experience as Registered Nurses (RNs) averaged 11.5 years (range 4-22) and 4.9 years (range 3 months to 6 years) as a nurse educator.

When the concept of changing conventional nurse-led self-care education classes to peer-led classes was first introduced, nurse educators expressed thoughts ranging from hesitancy/reluctance to being very opposed to this move (Table 1). Some of these insecure feelings continued through the 15 week change period, but once the process was established, all respondents (3 nurses who participated in all phases and 2 nurses involved only after the change occurred) reported seeing value in peer-to-peer learning.

Table 2 presents nurse perceptions of patient involvement in

Table 3: "Do you believe patient would receive lower, same, or better quality education in peer-led classes compared to traditional classes delivered by nurse educators?" (Truncated Responses).

Conventional classes (3 Nurses)
Same or better with regards to the life experience piece. Not sure about the details.
I believe the quality of education would be less but how patients would internalize it would be different. It is one thing to have someone who has never experienced what you have tell you this is how you can do x, y and z. It is a total different experience to have someone who is successful with similar obstacles, share how they have been successful.
I was not surehow this would play out. I thought the patients would be entertained, but not necessarily educated…
During the 4-month implementation when there was a mix of conventional and peer-Led classes (3 Nurses)
I would say at least the same, due to having the educator right there, available to add to the information being presented, or expand, and answer questions as needed.
I think the education had the same quality but the patients were more accepting with peer-led classes.
I felt the patients were receiving lower quality of education but better quality of interaction. I still struggled with the omission of anatomy and physiology.
After change to peer-led classes (5 Nurses)
Better quality – and [as a nurse] that's hard to say…
Same, possibly better.
The quality of interaction is better which allows for better retention.
*The peers can talk with the patients through all stages of injury; they are knowledgeable not only about their own circumstances but of those they work with and are very comfortable presenting the material to our patients.
*Better quality because the perspective has changed. Nurse educators may understand the medical processes; physiology of the injury, etc. better but having the peers share personal experiences and how they have dealt with spinal cord injury is invaluable.
*Respondent participated in 'After change to peer-led classes' only.

classes before, during, and after the change to peer-led CDSM style classes. Nurse respondents report a shift towards greater patient involvement and better class attendance with the change to peer-led classes.

Table 3 tracks nurse educator impressions about the quality of education delivered. Each respondent states that peers are knowledgeable about subject matter and deliver quality education to patients. They report quality to be improved and credit peer-to-peer interactions as an invaluable contribution to patient education. One nurse reports "it is hard for her, as a nurse, to say I believe the quality of education provided is better" after the shift to peer-led initiatives.

Discussion

The transition from traditional nurse-led patient education classes to CDSM style classes presented unique challenges to nurse educators. Because patient education is an integral part of nursing practice [35], nurses were reluctant about an education delivery model using a peer leader and removing anatomy and physiology information from class lectures. Several factors contributed to this reluctance, including resistance to turning over an important piece of patient care to a non-clinician, losing a fulfilling component of their job, and disbelieving that a peer could deliver education as effectively as the educator. An interesting paradigm shift occurred as nurse educators tried the approach, saw immediate improvements in patient engagement in classes, and realized they still provided value to the classes. In less than a year's time, reluctance turned into to advocacy.

The CDSM approach that includes transformative learning and reverse classroom theory, needed to be modified for application in a hospital setting. Unlike academic students or people living with chronic illness in community settings, hospitalized patients may have limitations in their ability to prepare for class or in understanding the need for such learning. Issues such as pain management, medication side effects, fatigue, and emotional adjustment to catastrophic injury can contribute to preparation abilities. Hence, we quickly learned that expecting patients to view materials prior to class was not realistic. A better approach was to dedicate time at the beginning of each class to review introductory materials, and thus, we began each class with a review of previous class content and a short introductory video for the current class.

Education delivery also benefited from the restructuring of class scheduling. 'Education Week' allowed for continuity in content deliver as well as in patients attending class each week. Having the same group of patient's progress through classes each week promoted comradery and increased patient comfort levels in discussing sensitive subjects related to bowel, bladder, and skin issues. Class participants began providing peer-to-peer learning to each other. Nurse educators also discovered that class attendance increased. Patients were more eager to come to peer-led classes and they were "bumped" from class schedules less frequently.

Nurse educators noticed immediate differences in patient involvement when peers began leading classes. Historically, when nurse educators taught classes, patients would enter the classroom and line up in front of the media screen in preparation for the PowerPoint presentation and lecture. When the first peer-led class took place, the nurse educator was seated in a chair to the side of the room and the peer leader was in the center of the room when patients entered. Patients positioned their wheelchairs in a circle around the peers creating a more intimate environment and started discussion before the class began. After class, patients did not hurry to leave and discussions continued after class time ended. During the trial period where only the bowel management class incorporated the CDSM approach, patients would ask why the peers were not leading other classes and their interest in attending subsequent classes for the week (bowel was the first class of the week) waned.

We hypothesize that one of the reasons peers are successful in

increasing patient engagement in classroom settings is that they are able to infuse humor into descriptions of personal situations. While, humor is a useful tool to increase engagement, it must be used carefully so that it is not interpreted as being rude or uncaring [37]. Peers were able to 'joke' about personal experiences and when patients began to smile or laugh about experiences of their peers, they relaxed and thought about how similar occurrences may happen to them. Patients, who were sometimes restrained and not wanting to talk about personal issues, became more willing and often eager to discuss their issues after a peer related a personal story (typically using humor). Nurse educators refrained from using similar degrees of humor when they taught classes for fear of being considered insensitive to patient conditions.

As nurse educators saw patients becoming more engaged in peer-led education processes, they also saw themselves learning from the peers. One educator stated "I personally learned so much myself from the peer-led classes. I think it gave me more of an acceptance of a SCI and helped me think outside the box for the patients I work with." By witnessing the revised process, nurses realized important pieces of clinical information could be woven into what appeared to be informal discussions led by peers and observed patients beginning to reflect personal relevance. "The support patients receive from peer-led classes is truly amazing. It really gives them hope and encouragement." "Peers are able to say things that the educators can't [referring to infusing humor into discussion] and that helps patients learn better." "It's the been there done that cliché, but patients see themselves in those peers, which gives them a sense of comfort and freedom to ask questions."

Limitations

Our sample size of 5 nurse educators is small and hence, we present descriptive accounts of their experiences with the move to peer-led education initiatives rather than more comprehensive qualitative analyses, such as grounded theory. While the sample is small, other organizations may have even fewer nurses dedicated to formal education roles, which are in addition to bedside education provision by direct patient care nurses.

The five nurses were asked to complete the surveys over 2 years after the first change to the CDSM approach. This allowed time for reflection of the practice after it had been incorporated into our rehabilitation culture, however, recall of concerns prior to and during the change process may have been affected.

It is also important to realize that management support of peer-led opportunities within organizational culture is essential for peers to assume major roles in education provision. Other organizations providing SCI rehabilitation may have a different organizational structure and culture, possibly limiting generalizability of our findings. It is not common to have employed peer support teams, as peers are often volunteers who focus on recreational activities. Having at least one staff member with a disability whose primary role is the provision /coordination of peer services is essential to incorporating peers into patient education programs.

Future research should examine retention of information delivered in conventional nurse delivered classes compared to peer-led efforts. We hypothesize that increased patient engagement in SCI rehabilitation peer-led self-care education classes may lead to improved longer-term outcomes related to self-management of injury conditions and acknowledge the need for this follow-up research. Feasibility studies that examine organizational variation in peer mentor involvement may set the stage for replication in a multi-site trial to examine optimal implementation modalities for scalability of the model and successful replication.

Conclusion

Nurse educator reluctance to considering peer-led CDSM education approaches developed into respectful acceptance and then advocacy of the process after witnessing dramatic differences in how patients engage in educational classes. Perceived threats to nursing practice vanished as nurse educators realized that nurses continued to be integral partners in education delivery even though peers functioned as the classroom leaders.

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