Geriatric Nursing 36 (2015) 40–46

Contents lists available at ScienceDirect

Geriatric Nursing

journal homepage: www.gnjournal.com

Feature Article

Narrative-based educational nursing intervention for managing hospitalized older adults at risk for delirium: Field testing and qualitative evaluation

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ARTICLE INFO

Article history:
Received 23 August 2014
Received in revised form
14 October 2014
Accepted 20 October 2014
Available online 20 November 2014

Keywords:
Delirium
Older adults
Continuous education
Narrative pedagogy
Patterns of knowing

ABSTRACT

Though delirium is a common complication among hospitalized older adults and the nursing care required in these situations is complex, the subject has received little attention in the literature on continuing nursing education. A study was undertaken to field test and qualitatively evaluate a narrative-based educational intervention for nurses in hospital units with a high incidence of delirium. Triangulated data collection allowed carrying out a qualitative evaluation of the intervention process and outcomes. Process evaluation showed that the intervention was facilitated by the participants' attitudes and diversity of experience, as well as by the use of real care situations, which allowed integrating theory and practice. Outcome evaluation brought to light numerous elements of empirical, ethical and esthetic knowledge expressed by the participants. Study results evidence the applicability of such interventions as part of continuing nursing education and their contribution to knowledge development.

Background

Hospitalized older adults are at risk for delirium. This syndrome is characterized by a sudden, fluctuating and temporary alteration of the person's attention, consciousness, and discourse, combined with difficulty answering direct questions, registering what is going on, and thinking clearly, rapidly, and coherently. Sleep, memory, psychomotor activity and perceptions may be disturbed as well.[1,2] Delirium affects the person's cognitive and functional abilities, length of hospital stay, and prognosis.[3–6] Moreover, persons with delirium experience a sense of incomprehension and other disturbing feelings, such as anxiety, distress, isolation, fear, and frustration.[7] When signs of delirium appear, it is essential that nurses recognize the situation and proceed rapidly to a global assessment of the patient in order to identify and eliminate physiological, pharmacological and environmental risk factors. It is incumbent on nurses, also, to diminish the impact of this syndrome on the patient's comfort, safety and physiological equilibrium.[8–11] Acknowledging what the person is experiencing, offering explanations of the situation, showing understanding, providing support, seeking the reassuring presence of family, and allowing the person to explain what they are experiencing are all interventions that can help the person get through an episode of delirium.[7]

In facing such a complex care situation, nurses must call upon different patterns of knowing: empirical, ethical, esthetic, personal, and emancipatory.[12] When nurses employ these different patterns, they engage in a process of problem solving and logical reasoning based on existing scientific knowledge, appreciate the profound significance that patients and their families attribute to their experience, find creative ways to transform this experience, and use their identity in a therapeutic manner so that their relations with patients become significant. These patterns serve, also, to question what the right and responsible thing to do is in a specific situation, to clarify the cultural beliefs and values required to render the situation fair and equitable, and take action in order to transform it.[13]

To our knowledge, no study involving nurses who attend to patient groups at risk for delirium has sought to develop these patterns of knowing. The studies found in the literature involving such nurses concern training in the use of a screening instrument for delirium[14–16] or the management of delirium with a standardized protocols.[11]

Reading articles on the different patterns of knowing described by Chinn and Kramer,[17–25] discussing stories or specific clinical

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0197-4572/$ – see front matter
http://dx.doi.org/10.1016/j.gerinurse.2014.10.010

situations, and sharing experiences have been the methods most commonly used to develop these patterns. In this regard, Chinn and Kramer[12] stated that nurses could enhance their different patterns of knowing and improve their practice by consciously and deliberately asking themselves critical questions regarding specific clinical situations. Narrative pedagogy, a phenomenological approach derived from nursing research, supports this vision of education as well. This innovative approach encourages participants to come together to learn by listening, interpreting, and questioning their experiences and by exploring other possibilities for the future.[26–28] Numerous studies, literature reviews and theoretical papers have explored or discussed narrative pedagogy.[13,28–39] These articles have underscored narrative pedagogy's capacity to develop holistic and interpretative thinking skills, create a partnership in learning, meet the needs of learners more effectively, address moral, ethical and social considerations critical to care and open learners up to multiple possibilities of care.

In this context, we set out to field test and qualitatively evaluate an educational intervention based on narrative pedagogy for nurses who take care of hospitalized older adults at risk for delirium. The aim of the evaluation was to identify intervention implementation facilitators and constraints, as well as the empirical, ethical, esthetic, personal and emancipatory knowledge expressed by participants during the educational intervention.

Framework

The framework selected for the study consisted of Diekelmann's narrative pedagogy[26] and Chinn and Kramer's patterns of knowing.[12] Narrative pedagogy grew out of two decades of hermeneutic phenomenological research aimed at gaining an in-depth understanding of the learning and teaching experiences of more than 200 nursing teachers, students and clinicians.[26] In interventions based on narrative pedagogy, teachers and students meet, stop, listen, share lived experiences, render the meaning of these experiences explicit, interpret and question these experiences, and are open to explore different possibilities for the future. Narrative pedagogy served to design the structure and process of the intervention under study (e.g., number of training days and interval between them, strategy for transmitting scientific information on delirium, instructions to participants, management of presentations and discussions) with a view to creating an enabling environment for learning.

The patterns of knowing[12] derive from the works of Carper[40] and the writings of various nursing theoreticians.[12,23,41–46] According to Chinn and Kramer,[12] these interdependent patterns of knowing are necessary to understanding a clinical situation. These authors have proposed a set of critical questions (see Table 1) for investigating clinical practice. The five patterns of knowing served also to structure the different guides and forms used for data collection and analysis.

Methods

To gain an in-depth understanding of the intervention's process and outcomes, we opted for a case study research design.[47,48] The educational intervention field tested with the nurses was the case under study.

The study was carried out on a short-stay hospital's cardiac and orthopedic surgery units – departments that tend to have a high delirium incidence.[49–52] The project was approved by the hospital's institutional review board (IRB). Nurses working on those units were recruited via a purposive sampling strategy with a view to selecting a sample of participants from different work shifts and with varying levels of education and experience. To be included in the study, nurses had to hold a regular full- or part-time position; write, understand and speak French; have experience attending to an older adult at risk for delirium; and be available for the entire duration of the intervention. Participants were recruited by the first author (LB) with the help of unit managers. Of the 23 nurses who agreed to meet the first author to receive information about the project, eight declined to take part owing to renovation work on the unit, organizational changes, and concurrent training activities. Participants signed an IRB-approved consent form.

The final sample consisted of 15 participants 23–64 years of age. More than two-thirds had less than six years' work experience and nearly half had a Bachelor's degree. The majority (78%) held full-time positions. Slightly fewer than 30% of the participants worked on the orthopedic care unit. Six participants worked the day shift, five the evening shift, and four the night shift. Three participants were male. No participant dropped out of the study.

Intervention

The intervention consisted of four days of training at three-week intervals and was offered to three separate groups of five participants. On the first day, the participants were handed a documentation package with guides for each of the activities planned over the course of the intervention (i.e., individual reflective exercises, group workshops), all the forms required to take part in these activities, and information sheets on delirium. These sheets contained brief summaries of the theoretical and empirical knowledge of the causes of delirium, people's lived experiences of the condition, recommended assessments and interventions, and how to manage related ethical problems. Bibliographical references for further reading were given on each of these sheets.

Three activities were planned on each day of the educational intervention. These are summarized in Table 2. At the start of the day, each participant completed an individual reflective exercise in which they had to describe a lived care situation involving a person with or at risk for delirium. The exercise was completed with the help of a guide comprising instructions and questions based on Chinn and Kramer's[12] patterns of knowing in nursing.

Then, the participants regrouped for a workshop during which they shared the content of their reflective exercises. During each presentation, the participants were asked to listen attentively, maintain a respectful and non-judgmental verbal and non-verbal attitude, participate actively in discussions, and allow persons wishing to express themselves the time to think, which could mean enduring silent pauses.[26] The workshop facilitator used Chinn and Kramer's[12] critical questions (Table 1) to prompt the discussion.

Table 1
Critical questions for understanding clinical situations.

Patterns of knowing	Critical questions
Empirical	What is this?
	How does it work?
Ethical	Is this right?
	Is this responsible?
Esthetic	What does this mean?
	How is this significant?
Personal	Do I know what I do?
	Do I do what I know?
Emancipatory	What are the barriers to freedom?
	What is hidden?
	What is invisible?
	Who benefits?
	What is wrong with this picture?

Adapted from Chinn and Kramer.[12(p14)]

Table 2
Activities planned on each day of the educational intervention.

Activity	Time	Process
Individual reflective exercise	1.5 h	Describe a recent care situation involving a person with or at risk for delirium. The description had to include at least the following: – primary concerns relative to the older adult – strategies used to relate to the person, – interventions implemented to respond to the person's specific needs – scientific knowledge justifying the interventions – ways to improve the care provided.
Group workshop	~5 h	Share, interpret and question the content of individual reflective exercises. Explore different possibilities of care. Tie in with theoretical and empirical literature on delirium. Do a synthesis of what was learned
Taking stock	~30 min.	Identify intervention implementation facilitators and constraints on this day. Suggest improvements for next day(s).

At the end of the day, a short period of time was set aside to take stock. This allowed improving the intervention process from one day to the next, taking account of group and individual particularities.

The investigator acted as workshop facilitator on these days, which allowed her an in-depth understanding of the context in which the intervention took place.[53] A more detailed description of the intervention tested is provided elsewhere (Belanger & Ducharme, 2012).

Data collection

Data collection was triangulated via field notes drafted by the investigator after each day of training, data from the participants' individual reflective exercises, semi-directed questionnaires completed by the participants at the end of each day, and semi-structured individual interviews conducted at the end of the intervention.

The investigator took field notes of a descriptive, methodological and analytical sort[54,55] throughout the intervention. They included a description of how the training days unfolded, the resources required, and the context, as well as her thoughts, feelings and reactions regarding the lived experience, the problems encountered, the solutions considered, and the adjustments made with respect to the intervention. The notes contained also a summary of the content covered during the training days, as well as personal highlights and reflections on the consistency of the process with the theoretical and empirical literature on delirium, narrative pedagogy, and the different patterns of knowing in nursing. The group workshops were recorded to make it easier to draft these notes.

The reflective exercises completed by the participants on each day of training were photocopied by the investigator for the purpose of content analysis.

A questionnaire composed of open-ended questions devised by the investigator was completed by the participants after each day of training. The aim of the questions was to identify elements that facilitated and constrained intervention implementation and participant learning relative to the patterns of knowing. For example, participants were asked to specify what they found easy or difficult about the reflective exercise that they completed, what they had retained concerning ways of intervening with persons with delirium in order to help them through the experience, and how the care provided might be improved.

An individual semi-structured interview was conducted at the end of the intervention with each participant by an external interviewer using an interview guide designed by the investigator. The questions included in the guide concerned intervention implementation facilitators and constraints and how the patterns of knowing were expressed in practice and evolved over the course of the educational intervention This guide is presented in Table 3. The interviews lasted about 35 min on average and took place at the start or end of the participant's work shift. Each interview was recorded.

Data analysis

The data were analyzed applying the content analysis method proposed by Miles and Huberman,[56] using the QDA-Miner© software. Data from field notes, reflective exercises, and individual interviews were coded by the first author (LB) and validated by the second (FD). Moreover, in order to enhance the reliability of the analysis, the data from the reflective exercises were coded by a person external to the research process.

The intervention's process and outcomes were evaluated through intra- and inter-participant analyses of data derived from the thematic coding of the field notes, the content of the reflective exercises, the interview transcripts, and the responses on the questionnaires. In the course of these analyses, data from the different sources were entered in a file specific to each participant and subjected to content analysis. Redundant data were sought and grouped by sub-theme for each research question. Then, the data analysis results for each group of participants were combined and the redundant or common elements yielded sub-themes specific to each group. Finally, the sub-themes specific to each group were

Table 3
Guide for the semi-structured interview at the end of the intervention.

In your opinion, what facilitated the course of the training?
In your opinion, what hindered the course of the training?
If I could observe your clinical practice with older persons at risk for delirium before and after the training, what differences would I see?
How are your concerns about the older persons cared for different?
What have you changed in your intervention strategies to meet the needs of older persons cared for?
What have you changed in your relational strategies with older persons cared for and their families?
What have you learned about delirium that seems useful to you for your clinical practice with older persons at risk for delirium?
In your opinion, how can the care of older people at risk for delirium be improved?

Table 4
Number of sub-themes and themes identified.

	Sub-themes[a]			Themes[b]
	Group 1	Group 2	Group 3	
Intervention facilitators	3	5	4	4
Intervention constraints	2	3	0	1
Empirical knowing expressed	3	2	4	4
Ethical knowing expressed	1	1	1	1
Esthetic knowing expressed	2	2	1	2
Personal knowing expressed	0	1	0	0
Emancipatory knowing expressed	0	1	0	0

[a] A sub-theme emerged when a code appeared in the data analysis for two or more participants.
[b] A theme emerged when two or more groups expressed the same sub-theme.

compared and, in turn, major themes for the entire sample were identified.

Findings

We analyzed the content of 174 pages of field notes, 56 reflective exercises, 48 end-of-day questionnaires, and 15 semi-structured post-intervention interviews. For each research question, we identified sub-themes within each group and themes within the entire sample (see Table 4). A thematic analysis of the data allowed identifying intervention implementation facilitators and constraints, as well as patterns of knowing expressed by the participants during the intervention. Furthermore, at the end of this section, we present certain aspects of the facilitator's role in order to facilitate intervention replication in a different context.

Intervention facilitators and constraints

Intervention implementation was affected by various facilitators. The majority of the participants mentioned that willingness to listen, respect and openness, and diversity of clinical experiences enabled implementation of the educational intervention. One participant had this to say in this regard:

> The group was very supportive. We were happy to listen to one another. At first, of course, everyone agreed with everyone, (…) but towards the end we weren't afraid to say stuff like: "Well, I might have done this instead" or "What would you think if…?" (…). That was great! (EF-11: 4–8)

The participants stressed, also, that using real care situations allowed drawing connections with theory. They appreciated that "the trainer brought up theoretical teaching points specific to the situation presented" (Q-13-1: q.5).

The active role played by participants in implementation of the group workshops was another facilitator to emerge from the analysis of the field notes. Over the course of the workshops, the participants contributed to the richness of exchanges by reframing what their colleagues said, legitimizing their interventions, suggesting solutions or sharing knowledge. Here are a few excerpts to illustrate the point:

> You figured it was connected to the pain, but did you have any other information to go on? Vital signs, lab results were all OK? If he was drowsy, why was he taking [this medication] at home? (…). You could have found out, see what he was on initially. Call the drug store. (NT-06-4: 276–280)

> You were able to ask the right questions. You said to yourself: that patient there was not like he was before. You understood that the patient was not in a normal state of mind. He had to be reassured in order for him to stay. (NT-15-1: 142–147)

Table 5
Patterns of knowing and their expression by the participants during the intervention.

Patterns of knowing	Themes
Empirical	Evaluate patient based on possible causes of delirium
	Avoid confrontation with patient
	Avoid using physical restraint
	Ensure continuity of care
Ethical	Question use of physical restraint
Esthetic	Listen and be sensitive to specific needs of patient
	Inform, reassure and involve patient's family

Two other participants shared their knowledge with the others as follows: "Delirium expresses itself suddenly. Dementia, (…) is something that comes on slowly" (NT-12-3: 85–86) and "You mustn't assess a person's cognitive state the moment he wakes up" (NT-14-3: 106).

Only one intervention implementation constraint emerged from our analysis. Some participants admitted having trouble completing the reflective exercises. Uncertainty regarding level of detail required, lack of habit, and a preference for verbal communication were the main difficulties mentioned.

Patterns of knowing expressed by participants

All five patterns of knowing were mentioned by the participants in the course of the intervention. However, the empirical, ethical and esthetic patterns were most salient in the analyses (Table 5).

Empirical knowing

Evaluate patient based on possible causes of delirium

A global assessment process that took into account the possible causes of delirium was presented both in the theoretical and empirical information sheets on delirium and in the course of the group workshops. The participants understood the process and integrated it in their clinical practice.

For example, one participant described the outcomes of her assessment of and interventions with an 81-year-old person who suddenly presented signs of delirium after awaiting surgery for more than 16 h on an empty stomach. The assessment allowed her to determine that the person was in pain and dehydrated. Intravenous administration of an analgesic and hydration helped improve the person's cognitive state rapidly.

Avoid confrontation with patient

The participants realized the importance of avoiding confrontation, for example, by seeking to orient the person in reality and by adapting their strategies to the fluctuating nature of the delirium. Here is how one participant integrated this way of knowing in her practice:

> I didn't insist too much on re-orienting the patient in the three spheres. I didn't want to confront her, seeing how she seemed fine in her own world. (TR-14-3: 71–74)

Avoid physical restraint

Having been exposed to the traumatic nature of physical restraint, the participants were aware of the importance of using these measures only as a last resort. Here is how some of them voiced this way of knowing:

> Before, though I might say to myself at times that it would just make matters worse (…) I restrained all the same, figuring it was the thing do. (…) Now, if I think it might worsen the situation, I don't do it. (EF-10: 218–221)

Ensure continuity of care

In the course of the group workshops, the participants also frequently expressed the importance of ensuring continuity of care across work shifts and care units. One participant specified that she had noted the risk for delirium and the need for cognitive assessment three times daily in the treatment plan of a heavy beer drinker transferred to another care unit. Another participant explained that she had briefed her break replacement to ensure optimal pain management for a patient in order to avoid provoking delirium.

Ethical knowing

Question use of physical restraint

The use of physical restraint was often discussed and questioned by the participants during the group workshops. In a care situation described by a participant, we learned that she had not given in to pressure from medical staff and decided instead not to apply any measure of physical restraint on a person presenting unusual behavior. Here is what she said:

> He looped around in bed, head to foot and back. I let it go. (…) It bothered the orderlies, though. I told them to let him be. It was no big deal. He wasn't going to fall. He was just going around in circles on his bed. (NT-10-3: 82–84)

Esthetic knowing

Listen and be sensitive to specific needs of patient

Participants identified listening to patients, finding out what they really needed, and meeting those needs as ways of helping and relieving the patients. This was reflected in the following utterance:

> I told him [her son] that he could walk her up and down the hall if he wanted because she just insisted on getting out of bed. (TR-09-3: 27–29)

Inform, reassure and involve patient's family

Based on experience, the participants underscored the importance of informing, reassuring and involving the families of persons with delirium. These families were considered sources of help under the circumstances. In this regard, here is what one of the participants told a family: "Seeing familiar faces (…), the patient will feel better, much more reassured (…). In the end, if you stay, you will reassure him tremendously" (EF-09: 408–410).

Others results concerning the facilitator's role

In addition to intervention implementation facilitators and constraints and the patterns of knowing expressed by the participants, the facilitator (i.e., the first author, LB) managed to identify in her field notes aspects of her role that could be useful for intervention replication. These aspects concerned the period before and during each day of training.

Before each day of training, the facilitator made sure to have a room with a table around which the participants could sit, as well as the material necessary to lead the group workshop (e.g., audiovisual testimony of persons having experienced delirium or of their family members, reference material on medication, and paper posters and markers for doing a synthesis of what was learned). She also prepared, when needed, a response to any questions or concerns expressed by the participants the previous training day. In some cases, she had to search health databases such as CINAHL and Medline for the required information.

On each day of training, the facilitator followed up on questions or concerns that emerged the previous session. She used the theoretical and empirical information sheets on delirium to make connections with the care situations described. However, she avoided presenting research results as truths in order to remain open to other care possibilities. When relevant, she used audiovisual testimonies to deepen the exchanges on a specific topic or to have another care situation to interpret when a participant was absent. She also frequently asked critical questions (Table 1) to broaden the content of the participants' reflections.

Discussion

The process evaluation of this innovative educational intervention based on narrative pedagogy[26] evidenced that listening, respect and openness among participants, diversity of participants' experiences, use of real care situations and active role of participants facilitated intervention implementation. These results suggest the usefulness of establishing rules at the outset of training regarding participants' attitudes and behaviors and of resorting to lived experiences as basic material for exchanges. Furthermore, they are consistent with the practices derived from the works of Diekelmann,[27] for whom meeting, listening, being open to different possibilities, and sharing lived experiences help create an enabling environment for learning. The results of the process evaluation are in line also with the ideas expressed by Schön[57] and, more recently, by Horton-Deutsch[58] on reflective practice. The latter author points out, in particular, that reflective practitioners are sensitive to the stories told by nurses and patients and reflect upon their content and how it can transform care practices.

Also, various ways of delivering quality care to hospitalized older persons at risk for delirium emerged from the results of the intervention's evaluation. These outcomes brought to light various elements of empirical, ethical and esthetic knowing expressed by the participants. In particular, the participants assessed persons more thoroughly and avoided using physical restraint. The participants noted, also, that listening, sensitivity to specific needs of patients, and family presence were particularly useful ways of transforming the experience lived by these patients. These results confirm the writings of some authors[28–35] that emphasize that narrative pedagogy allows exploring multiple possibilities of care. They are also consistent with McAllister et al[38] who suggest that narrative pedagogy can help to address moral, ethical and social considerations critical to care and with Schön's[57] and Sherwood and Horton-Deutsch's[59] ideas to the effect that reflection contributes to create ties between theory and practice. In this regard, Sherwood and Horton-Deutsch[59] write that reflective practice allows nurses "to understand their definition of ideal practice, then examine the multiplicity of factors within the clinical interaction that either hindered or enhanced their ability to achieve ideal practice, and then consider alternative actions for the future" (p. 25).

Personal and emancipatory patterns of knowing, however, were seldom expressed by participants. This finding can be explained by the fact that these patterns require deep self-reflection and the capacity to describe what one thinks and does and to contribute to interdisciplinary debates.[46,60] According to Chinn and Kramer,[12] different types of reflective, if not meditative, practices might foster the expression of personal knowing. Accordingly, in order to encourage participants to examine their personal experiences, it would be useful to explore ways to stimulate self-reflection and reflection on their relationship with patients. Also, to stimulate the expression of emancipatory knowing, participants could be asked to specify what they did or said to transform a situation they deemed unjust or inequitable for a patient. Another strategy worth

consideration is including persons from other disciplines among participants in order to give nurses greater visibility and to allow them to take part in interdisciplinary debates concerning shared care situations.

In the light of the results of this study, it is indispensable that nurses question their practice, seek ways to improve it, and take action to transform it. Nurses can improve their practice and the care they provide essentially by taking an interest in the lived experience of older adults with delirium under their care, by seeking what is most important to them, and by exploring – together with their family, the care team, and the other professionals and managers – ways to transform their experience. For these professionals, this entails moving away from the application of standardized protocols and unshackling themselves from the common approaches used in care settings focused primarily on physical symptoms and the treatment of disease.

Despite efforts to apply the utmost scientific rigor, our study presents certain limitations that merit comment. Results could have been influenced by the fact that the investigator acted as workshop facilitator. Though the triangulation of data collection methods was a means of attenuating this bias, a facilitator external to the study might have yielded more in-depth results. Also, a larger and more varied sample would have allowed obtaining results on different subgroups of participants, including those with a college or university education and those with more or less work experience. This would have broadened the applicability of the results. Finally, the absence of quantitative data on the participants' practices pre- and post-intervention could also be considered a limitation. Quantitative results would help disseminate the intervention.

Conclusion

The educational nursing intervention under study affords promising possibilities for improving the care provided older adults at risk for delirium and their families. It is also potentially transferable to populations of nurses who attend to other patient groups with complex health needs, particularly in geriatric care, oncology and palliative care. The qualitative evaluation of this intervention points to ways the intervention could be refined and suggests possibilities for future studies. In particular, it would be advisable to repeat this study with a larger number and wider variety of participants. Also, a mixed research design would allow measuring the effects of the intervention on nurses and hospitalized older adults and their families.

Acknowledgments

The study has been funding by several organizations such as Chaire Desjardins en soins infirmiers à la personne âgée et à la famille, Faculté des sciences infirmières de l'Université de Montréal, Ministère de l'éducation des loisirs et des sports du Québec (MELS), Réseau québécois de la recherche sur le vieillissement (RQRV), Association québécoise des infirmières et infirmiers en gérontologie (AQIIG), Fondation de recherche en sciences infirmières du Québec (FRÉSIQ), and Groupe de recherche interuniversitaire en intervention en sciences infirmières du Québec (GRIISIQ).

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