Using the ADDIE Model to Develop Online Continuing Education Courses on Caring for Nurses in Taiwan

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abstract

Background: A hospital in Taiwan committed to implementing a framework of caring in clinical practice. This study was conducted to develop online courses on caring for the hospital’s nurses.

Method: The ADDIE (Analysis, Design, Development, Implementation, and Evaluation) model was applied to develop and evaluate this caring curriculum. Concrete caring and uncaring behaviors were identified through patient and nurse interviews. These were used to make 72 instructional videos and five live-action movies. Evaluation tools included quizzes, self-evaluations, focus group interviews, and a measurement of caring behavior. Patients used the same instrument to evaluate the nurses.

Results: Nurses’ self-evaluations showed positive results. No significant difference was found between pre- and postcourse patient evaluations.

Conclusion: This study shows the usefulness of ADDIE and provides a model for how research data and results can be used to inform administratively mandated organizational change. It also provides evidence on the effects of caring education.


In Taiwan, nurses’ working hours are loosely regulated, and unpaid overtime is common (Taiwan Healthcare Reform Foundation, 2011). Because of the high workload, local nurses lack the time and energy to pursue the 150 hours of continuing education classes mandated by the Taiwan Ministry of Health and Welfare every 6 years to renew the nursing license (Ministry of Health and Welfare, 2013). The nurses also perceive themselves as less caring than they should be (Lee, Yang, Tsai, Tsai, & Tsai, 2011). Despite this, continuing education materials in Taiwan rarely address the issue of caring in nursing.

To promote the quality of nursing care, a local Adventist Hospital implemented the SHARE philosophy (Sense people’s needs before they ask. Help each other out. Acknowledge people’s feelings. Respect the dignity and privacy of others. Explain what’s happening.) of humanistic caring for their hospital staff in clinical practice. However, in a previous study in this 3-year series (Hsu, Turton, Cheng, & Lee-Hsieh, 2013), the authors found that this hospital had never concretely defined SHARE, nor did it offer courses or seminars on how to practice SHARE in nursing. Moreover, through focus group interviews, the educational team found that nurses at the hospital could not articulate concrete concepts for SHARE. Having identified gaps in knowledge, skills, and practice (DeSilets, Dickerson, & Lavin, 2013), the educational team proposed using the SHARE framework as a conceptual basis to develop an online continuing education curriculum on caring for the hospital. Online courses on caring, accessible to the nurses at any time, could be a solution to the problem of motivating busy nurses to attend courses. Because Taiwan is one of the world’s most Internet-accessible nations, the educational team constructed an online SHARE caring curriculum for the
hospital nurses that followed the commonly used ADDIE (Analysis, Design, Development, Implementation, and Evaluation) model (Dick, Carey, & Carey, 2004).

This article describes the development of this SHARE curriculum during a 2-year period from August 2011 to September 2013 using the ADDIE model. Concrete caring and uncaring behaviors were identified through interviews with patients, family members, and nurses. The team developed the following three learning objectives: Nurses should be able to (a) recognize the hospital’s core philosophy and the SHARE framework, (b) explain the SHARE framework, and (c) perform caring behaviors in clinical practice.

The authors drew on this information to make online multimedia instructional videos. Educational outcomes were evaluated using reflection quizzes, nurse self-evaluations, focus group interviews, and a Caring Behavior Measurement (CBM) (Lee-Hsien, Kuo, Tseng, & Turton, 2005). The patients used the same instrument to evaluate the nurses. The curriculum that was developed in this study is novel, generalizable, evidence based, and intended to enhance professional development, as required by the American Nurses Credentialing Center (2013) guidelines.

This research has both practical and scholarly applications. First, the authors verified the usefulness of the ADDIE model for curriculum development. Second, data from this research project provided evidence of the effectiveness of this instructional approach and also may serve as a reference for revision of the SHARE caring curriculum at this hospital and other hospitals. Finally, this method addressed the effectiveness of the educational materials not only via surveys of the target learners, the nurses, but also through surveys of the recipients of care, the patients. Interestingly, this study found that although the nurses gave themselves higher scores than the patients did for frequency of performance of caring behaviors, there was no significant difference between patient evaluations of nursing care before and after implementation of the curriculum. These results are discussed in the conclusion.

LITERATURE REVIEW

Dick et al. (2004) emphasized that instructional design requires the use of a system to analyze problems and identify learning objectives to establish a strategic plan to solve teaching problems, test solutions, evaluate the results, and revise the program. Although the literature offers a number of systematic instructional design models, the ADDIE model is probably the most commonly used. Gustafson and Branch (2011) observed that the systematic ADDIE model has six features:

1. Curriculum instructional design and learning activities are learner centered.
2. Instructional design is a goal-oriented process.
3. The learner can exhibit concrete and meaningful actions and solve practical problems.
4. There are specific learning outcome indicators, and the assessment approach shows both reliability and validity.
5. The teaching content is based on the development of empirical data.
6. The curriculum instructional design requires teamwork.

However, the ADDIE model has been criticized as limited and static (Allen & Sites, 2012).

The fivefold framework of the ADDIE model covers all of the steps of the instructional design process (Dick, Carey, & Carey, 2011; Gustafson & Branch, 2011). In the analysis stage, the learning needs of the target learners are considered. The design stage considers how the target learners learn. In the development stage, teaching materials are constructed. The next stage involves implementing the teaching, constructing the teaching environment, and placing teaching materials in the teaching environment. The final stage is evaluation of outcomes and performance.

METHOD

Analysis

The educational team conducted a needs analysis of the target learners. It included an assessment of nurses’ learning needs (nurses’ knowledge of the SHARE framework), learning characteristics and motivation, and access to technology to determine the learning goals.

Learning Needs. This goal of the curriculum was to increase staff nurses’ understanding of the concept of the SHARE framework and provide caring behaviors to fulfill patient needs. To assess the nurses’ learning needs, the authors conducted focus group interviews with nurses and one-to-one in-depth interviews with hospitalized patients to explore patient experiences of caring by nurses. Purposive sampling was adopted in this stage. First, five focus group interviews were conducted with 19 exemplary nurses identified in letters from patients and family members. These nurses came from the general floor, the emergency department, and the surgical, pediatric, medical, hemodialysis, and obstetrics-gynecology units. The nurses were asked: “Please share your most unforgettable nursing experiences”; “Please share the experiences that have given you the greatest sense of accomplishment”; and “What kind of nursing behaviors do you think will make patients feel the nurse cares for them?”

The average duration of each interview was 150 to 180 minutes. The authors conducted semi-structured in-depth interviews with hospitalized patients who (a) were hospitalized for at least 3 days, (b) were able to communicate in Taiwanese or Mandarin, and (c) had
clear consciousness. A total of 14 participants, including 11 patients and 3 family members, were interviewed. The interviewees, all 30 to 75 years, were from the internal medicine, surgical, and obstetrics-gynecology units and had been hospitalized for 3 to 48 days. Questions included the following: “During your time in the hospital, in the interactions between the nurse and yourself, what behaviors made you think she was caring for you?” “What behaviors made you think she was not caring for you?” and “What behaviors would you like her to do that would make you feel cared for?”

The interviews took 20 to 94 minutes.

All of the interviews were recorded and transcribed verbatim for qualitative content analysis. The data from the focus groups were then analyzed via the constant comparative method for categorization into caring themes that were then integrated into the five elements of the SHARE framework. Nurses’ learning needs were then categorized and summarized to serve as a guide for development of the curriculum content.

**Learning Characteristics and Motivation.** In this hospital, and in general in Taiwan, nurses must personally attend class to obtain continuing education credits. Instructors usually make PowerPoint-based presentations that are shown under dim light, and regrettably, many nurses use this time to catch up on their sleep. The online caring curriculum in this study was designed to be easily accessible from home and to motivate busy hospital nurses to learn the new information.

**Teaching Media.** The educational team discussed the hospital’s e-learning systems with the information management department to learn how the hospital’s in-house e-learning systems handled each type of media, including video, audio, images, and text.

**Design**

In the design stage, the educational team identified the learning objectives and designed the content of the course units, learning strategies, evaluation methods, and teaching methods, based on the objectives. During this stage, the educational team met once with an expert panel composed of three experts in sociology, education, and nursing, respectively, to review the objectives, learning strategies, and content.

**Identification of Learning Objectives.** The educational team met twice with the hospital’s nursing administrators to gain an understanding of the philosophy of the hospital, the development of the SHARE framework, and the reasons why this hospital adopted the SHARE framework to promote the quality of nursing care.

**Course Units.** The educational team designed the curriculum, which consisted of five course units: (a) Sense patient’s needs, (b) Help patients out, (c) Acknowledge patient’s feelings, (d) Respect the dignity and privacy of patients, and (e) Explain what’s happening. This was described by the acronym SHARE.

**Learning Strategies.** Based on the literature review, the authors used role modeling, reflection, and video as learning strategies.

**Evaluation Methods and Instruments.** Evaluation of the nurses’ learning outcomes consisted of five parts. First, the courses themselves contained reflection quizzes that were presented during each unit. These quizzes were focused on uncaring behaviors displayed by nurses as described by patients. The quizzes asked questions, such as “If you were the nurse in this scenario, what would you have done differently, and why?” Second, when the entire set of five SHARE units was completed, the nurses were instructed to complete an online course evaluation questionnaire that consisted of 10 items. Items were scored on a 5-point Likert scale (5 = strongly agree, 1 = strongly disagree) (Table 1). Third, focus group interviews were planned on completion of the course. Fourth, the nurses were to be given a self-evaluation using the CBM (Lee-Hsieh et al., 2005). The CBM, developed from the patient point of view in a Taiwanese context, consists of 28 items grouped into two major domains: (a) sincerity, empathy, and respect; and (b) professional caring behaviors. These two domains explained 64.958% of the variance. Items are scored on a four-point Likert scale (4 = always, 1 = never). Overall Cronbach’s α was 0.974. Fifth, the authors planned to use the CBM to evaluate patient perceptions of nursing care.

**Development**

Development of content and materials was based on interviews with patients, family members, and nurses (Table 2). Development was carried out in five steps. First, using the experiences of the interviewees, the authors created scripts for 72 videos, 48 using patient experiences and 24 using nurse experiences. Based on the content analysis, portions of the audio recordings were selected and incorporated verbatim into the scripts as the authentic voices of patients, family members, and nurse experiences. To protect the participants’ identities, the 72 videos were made using Voki custom avatars to represent all speakers. The videos, subtitled in Chinese, were compiled using Corel VideoStudio Pro in WMV format. Second, the reflection quizzes on the video content were inserted into the videos to ensure that the nurses would not skip the content and go directly to the end to answer the questions and obtain the credit. The quizzes could be downloaded and then uploaded on completion to the educational team’s Google Drive account. Ten minutes were allowed for
the quizzes, with 40 minutes for the videos, for a total of 50 minutes for 1 credit hour. The Taiwan Nurses Association Continuing Education Credit Regulations define a credit hour as 50 minutes of instruction (Department of Health, 2008). Third, five live-action videos were created using the stories from the exemplary nurses. Fourth, the materials developed in the first three steps were sent for review to the same expert panel that reviewed the objectives, learning strategies, and content in the design stage. The panel evaluated content validity using the four criteria of representativeness, appropriateness, completeness, and importance. Fifth, the content was revised according to the recommendations and suggestions of the expert panel.

Implementation

The research project began after the hospital’s institutional review board approved the study. All participants, both nurses and patients, signed consent forms and were informed that they were free to leave the study at any time. Nurses were informed that participation would not affect their clinical practice evaluation. Because patient evaluations were collected by the research assistant, the nurses did not know the results of the patient evaluations.

The educational team first obtained permission from the hospital nursing department to conduct this research. The nursing department selected the obstetrics-gynecology ward for the pilot test. The principal investigator approached the head nurse of the obstetrics-gynecology ward about conducting the study. The head nurse then set up a meeting between the principal investigator and the ward’s 14 nurses to introduce the purpose and procedures of this research. The nurses then took the course online during their free time.

Evaluation

Reflection Quizzes. On completion of the unit, the answers to the quiz questions were downloaded, printed, and analyzed with a constant comparative method.

Course Evaluation Questionnaire. All of the 14 nurses who worked on the obstetrics-gynecology ward completed a questionnaire to evaluate their experiences and perceptions of the course during the period from May 20 to June 20, 2013.

Focus Groups. Invitations were sent to all 14 nurses asking them to participate in focus group interviews held on July 25 to 26, 2013. Eight nurses participated, five in the first group (interview time: 100 minutes) and three in the second (interview time: 60 minutes). Open-ended questions that were used included: “Please share your experiences with taking this online course”; “What insights and recommendations do you have?” and “Which unit or scenario most deeply impressed you, and why?” Permission was obtained to record and transcribe the interviews.

Self-Evaluations. The nurses completed the CBM. The questionnaires were distributed anonymously and returned to the research assistant between August 25 and August 31, 2013.

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. After taking this online SHARE course, the learner is able to:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Understand the meaning and content of SHARE.</td>
<td>4.57</td>
<td>0.51</td>
</tr>
<tr>
<td>2. Perform SHARE concepts in clinical practice.</td>
<td>4.50</td>
<td>0.52</td>
</tr>
<tr>
<td>B. Learner perceptions of the course design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Course units are clear and accurate.</td>
<td>4.43</td>
<td>0.51</td>
</tr>
<tr>
<td>4. Case scenarios are appropriate for each unit of SHARE.</td>
<td>4.43</td>
<td>0.65</td>
</tr>
<tr>
<td>5. The presentation of the course materials (audio and video) can enhance motivation for learning.</td>
<td>4.50</td>
<td>0.52</td>
</tr>
<tr>
<td>6. The design of the case scenarios can improve learning outcomes.</td>
<td>4.43</td>
<td>0.51</td>
</tr>
<tr>
<td>7. The reflection quizzes for each unit can improve learning outcomes.</td>
<td>4.43</td>
<td>0.51</td>
</tr>
<tr>
<td>8. Course content is related to clinical practice.</td>
<td>4.57</td>
<td>0.51</td>
</tr>
<tr>
<td>9. This online course is better than conventional courses.</td>
<td>4.50</td>
<td>0.52</td>
</tr>
<tr>
<td>10. The duration of each unit is appropriate.</td>
<td>4.50</td>
<td>0.52</td>
</tr>
<tr>
<td>Total</td>
<td>4.49</td>
<td>0.45</td>
</tr>
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Note. SHARE = Sense people’s needs before they ask, Help each other out, Acknowledge people’s feelings, Respect the dignity and privacy of others, Explain what is happening.
**Table 2**

RESULTS OF EXEMPLARY NURSE AND PATIENT INTERVIEWS: CARING/UNCARING THEMES AND SUBTHEMES CATEGORIZED WITHIN THE SHARE FRAMEWORK

<table>
<thead>
<tr>
<th>SHARE Framework</th>
<th>Nurses</th>
<th>Patients/Family Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sense patient’s needs.</td>
<td>Fulfilling the patient’s physical, psychological, social, and spiritual needs.</td>
<td>Taking the initiative in caring for the patient’s physical condition (checking on the patient without being asked). Providing nursing interventions that fulfill patient needs (providing individualized nursing care/providing assistance with bathing/actively offering pain relief intervention/changing intravenous lines). Routinizing nursing tasks (failing to consider patients as individuals/failing to observe the patient’s rehabilitation status/failing to show concern for the patient’s condition).</td>
</tr>
<tr>
<td>Help patients out.</td>
<td>Resolving problems (providing hands-on nursing care/using social resources).</td>
<td>Resolving bothersome problems (coming as soon as the call button is pressed/regularly changing the patients’ position at night/using the hospital’s resources to resolve issues). Ignoring physical care (not changing the patient’s position/not cleaning the catheter). Refusing patient requests (telling the patient to hire someone to help care for them/ignoring calls).</td>
</tr>
<tr>
<td>Acknowledge patient’s feelings.</td>
<td>Being sincere.</td>
<td>Expressing kindness (smiling/speaking warmly/answering patiently).</td>
</tr>
<tr>
<td>Respect the dignity and privacy of patients.</td>
<td>Respecting the patient’s privacy, dignity, religious beliefs, culture, and language.</td>
<td>Respecting autonomy and privacy (keeping the patient’s hospitalization confidential/allowing the patient to choose among alternatives).</td>
</tr>
<tr>
<td>Explain what’s happening.</td>
<td>Instructing and explaining (explaining the patient’s condition, medical procedures, hospital rules, the use and effects of medications, and legal documents, such as consent and do not resuscitate forms).</td>
<td>Actively explaining current and upcoming interventions (providing an explanation before any action is performed/helping patients to understand the content of consent forms). Failing to give patients instructions when performing nursing tasks (giving medication without explanation/not teaching patients how to care for themselves/not notifying patients ahead of time so that they can prepare psychologically).</td>
</tr>
</tbody>
</table>

**Patient Evaluations.** Patient evaluations using the CBM to evaluate nurse caring behaviors for patients who were hospitalized in the obstetrics-gynecology ward were administered twice, once before the online course began (March to June, 2012; 113 patients) and once after it concluded (July to September 2013; 113 patients). The patients in the groups were different.

**RESULTS Analysis**

As mentioned earlier, exemplary nurses, patients, and family members were interviewed. Learning needs were then defined based on three sources: caring behaviors of the exemplary nurses, caring behaviors identified by patients and family members, and
uncaring behaviors identified by patients and family members.

Table 2 summarizes the results of the analysis and comparison of the patient and nurse interview data categorized according to the SHARE framework. The interviews showed that the nurses expressed a much broader view of caring than the patients. Patients focused on the physical aspects of care, indicating that nurses should care for their physical needs, privacy, and confidentiality. The negative behaviors that they identified, which included routinizing nursing activities, failing to carry out actions such as changing intravenous lines without being asked, and entering rooms and private spaces without announcing themselves, reflect these concerns. The nurses saw caring as fulfilling patients’ physical, social, spiritual, and psychological needs. None of the patients mentioned spiritual or psychosocial needs, other than the needs of privacy and sincerity.

The hospital’s information technology staff recommended that the authors use the hospital’s studio and video production system to create the learning materials for the course. The hospital also required the use of FLV files for their internal online education system.

Design
Based on the three learning objectives, the authors designed the three parts of the course: (a) introduction to the hospital’s core philosophy, mission, and vision, as well as the nursing department’s mission and the origin and meaning of the SHARE framework; (b) the five units of the SHARE course; and (c) the five videos of the exemplary nurses performing caring behaviors in clinical practice. Learning strategies included role modeling, case studies, video instruction, lectures, and reflection.

Development
The Sidebar shows examples of the caring and uncaring behaviors demonstrated in the 72 videos that were produced for the course.

Implementation
In the implementation stage, the online caring courses developed for the pilot program were posted on the hospital’s own website via its e-learning system. The 14 nurses from the obstetrics-gynecology ward took the online courses during May and June 2013.

Evaluation
Reflection Quizzes. The goal of the quizzes was to encourage nurses to reflect on their behavior. Analysis of the reflection quizzes showed that all of the nurses believed that they would perform better than the nurses in the scenarios because the quizzes asked about uncaring behaviors by nurses, as described by patients. For example, in the Help Patients Out scenario, one of the nurses snaps, “You are not the only patient we have.” The 14 nurses gave five types of answers: (a) I would determine a priority for the patients to receive attention, and if I cannot come, I’ll get a colleague to help (n = 5); (b) I would tell the patient, “Wait a moment; I’ll be right there” (n = 4); (c) I would explain what is going on and tell the patient why I couldn’t come right away (n = 3); (d) I would tell the patient, “I’m busy” (n = 1); and (e) I would tell the patient, “I’ll be right there” (n = 1).

Course Evaluations. Course evaluations were conducted to evaluate the course goals, content, strategy, materials, and learning outcomes. The course evaluation items and scores are shown in Table 1. The overall mean score was 4.49 ± 0.45. The highest score, 4.57, was given to “understand the meaning and content of SHARE” and “Course content is related to clinical practice.”

Focus Groups. The focus groups were conducted to examine the nurses’ learning experiences and obtain suggestions for course revisions. Content analysis of the focus group interview data showed the following:

1. Nurses found the content attractive. One nurse said, “Because each case was described in the authentic voice of the patients, it was a narrative, which I found
attractive. I didn’t feel that taking a class alone in front of the computer was boring.”

2. The material in the quizzes was deeply affecting. The uncaring behaviors included in the reflection quizzes left a strong impression on the nurses. One nurse said, “The story that impressed me most deeply was the patient’s description of listening to the nurses chatter about what they were ordering for lunch as the patient was undergoing spinal anesthesia for surgery. It made me reflect on my own behavior on the ward.”

3. Nurses considered changes in their interactions with patients. Many nurses said that they were better able to see things from the patient’s point of view. One nurse said, “Now when we order our lunch, we do it quietly so that the patients won’t hear.”

4. Nurses appreciated the flexibility of the class time. The nurses said that in this hospital, all classes are held between 3:30 p.m. and 5:30 p.m. During the interviews, the researchers learned that the hospital computer system could not be accessed from outside the hospital, so the full flexibility of the online courses was unavailable to the nurses. However, the nurses still appreciated the flexibility of the online courses, which enabled them to take classes at any time, from late at night to their lunch and dinner breaks.

5. Nurses were interested in the capability to participate in forums. Several nurses suggested offering a forum so that they could discuss the quizzes with other nurses.

6. Nurses found the courses demanding. One nurse said that the unit with three reflection quizzes (Acknowledge Patient’s Feelings) was too time consuming and decreased her motivation to learn. She noted that one quiz for each unit was enough.

Nurse’ Self-Evaluations. The self-evaluations were intended to provide data on the frequency of the nurses’ caring behavior. The mean score on the CBM for all 28 items was 3.58 ± 0.42.

Patient Evaluations. Patients evaluated their perceptions of nurse caring behaviors. Before the class, 113 patients were surveyed. The mean score on the CBM for all 28 items was 3.45 ± 0.45. After the class, another 113 patients were surveyed, and the mean score was 3.34 ± 0.43. This difference was not statistically significant ($t = 1.908$, $p > 0.05$).

DISCUSSION

This study shows how evidence from research can inform organizational change. The current research shows that caring capacity can be taught via e-learning when the curriculum and accessibility meet learner needs. The four evaluations from the target learners, the reflection quizzes, the course evaluation forms, the focus groups, and the self-evaluations (CBM) were all positive. The nurses said that the course changed the ways in which they interacted with patients.

The videos of exemplary nurse role modeling were expected to have a strong pedagogical effect, but the nurses consistently identified the examples of uncaring behavior as having the strongest influence. They remembered these negative cases most clearly, they said. This appears to be at least in part because they saw themselves as being guilty of many of these behaviors at one time or another. Further, the reflection quizzes were all based on these negative cases, reinforcing their influence. This suggests that researchers and instructors may find such negative examples useful as instructional strategies.

The authors had envisioned the online course program as something that the nurses could access at home. However, during the focus group interviews, the authors learned that the hospital’s computer system was not accessible from outside the hospital. Despite this difficulty, the nurses reported that they were pleased with the flexibility of the system because it permitted them to take classes whenever they were at the hospital.

The ADDIE model provided a practical framework for organizing the course development project. As Branch (2009) noted, ADDIE both describes what happens and prescribes what needs to happen. In this study, the ADDIE model’s goal orientation helped to meet the disparate needs of the staff nurses (the target learners), the patients, and the hospital administration. Normally, the classroom is provided by the institution and thus this setting is assumed rather than considered when designing a conventional course. However, the formal inclusion of an analysis of the learning environment led the authors to consider the merits of various forms of online course presentation. They eventually settled on a video-based format because in Taiwan, text-based materials dominate the limited online course content for nursing continuing education (Taiwan Nurses Association, 2013).

The results showed a conflict between nurses’ perceptions and those of patients. The nurses said that the course was helpful and that their caring behaviors increased as a result of their participation. Their ratings on the CBM, which measures the frequency of caring behaviors, were higher (3.58 ± 0.42) than those of the patients (3.34 ± 0.43). There are two possible explanations for this outcome. First, of the 14 nurses who participated in this course in 2013, four had just graduated from school in May and three were floating nurses who came from other units to help cover the perpetual staffing shortage in Taiwan’s hospitals. Hence, their professional competence in the skills necessary for the obstetrics-gynecology ward may have been lower because of inexperience. This factor may have reduced their scores on the postcourse surveys.
Second, at the time of the precourse survey of patients, from March to June 2012, there was tremendous negative media coverage of the treatment of nurses in Taiwan hospitals. The study research assistant reported that many patients mentioned the issue of nurse overwork, with comments such as “The fact that the nurse is able to do what she is doing is already wonderful enough.” By contrast, in 2013, there was no discussion in the media about the ongoing nursing shortage. This difference in media coverage may have driven up the scores that patients gave the nurses in the precourse survey.

There was no pretest for nurses who participated in this study because turnover among the ward staff was too rapid. Independent observation of nurses’ interactions with patients was not possible. Consequently, the authors relied on nurse and patient descriptions of these interactions. Finally, because the hospital chose the obstetrics-gynecology ward for the pilot study, all of the patients were female. This decision may have introduced gender bias into the patient data collection, case study examples, and results.

These findings have a number of implications. For administrators, this study shows how evidence from research into the actual behavior of organizational members can be used to implement top-down organizational change. Therefore, the authors recommend that the administrators provide funding and other forms of organizational support for researchers to conduct organizational studies to fulfill organizational mandates. For researchers, this article offers a practical approach for using research methods that can meet academic, educational, and organizational goals and fulfill clinical practice needs. For educators, this study shows that caring capacity can be taught via e-learning when the curriculum and accessibility meet learner needs. It also shows how the everyday experiences of nurses and patients may be used to provide authentic educational materials. For staff, educational materials based on authentic experiences can provide role modeling, peer influence, and self-reflection on nursing behavior. These materials also can help to create a sense of shared organizational identity and consistent values and behavior among organizational members. The authors plan future research to investigate the effectiveness of the caring curriculum discussed in this article.

REFERENCES

key points
Online Continuing Education Courses

1. The ADDIE model is both useful and practical for course development.
2. Online courses are an effective method for providing continuing education for nurses.
3. Patient-centered research provides a powerful foundation for education in patient-centered caring.