The CARES®-University of Minnesota Partnership: Advancing Online Dementia Training

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Specific Aims

- History of HealthCare Interactive, Inc. (HCI) and Dr. Gaugler collaboration
- Review of CARES® online dementia care training modules
- The CARES® Dementia-Friendly Hospital™ Program (CDFH)

History of HCI-University of Minnesota Collaboration

- The Families and LTC Projects
- HCI
  - “HealthCare Interactive offers online, video-based, engaging online education programs for families and professionals caring for someone with memory loss, Alzheimer's disease, or dementia. We are the only online dementia training programs to be directly recommended by the Centers for Medicare & Medicaid Services (CMS), and our programs have been national award winners for the past five years in a row.” (http://hcinteractive.com)
  - Founded in 1997: John Hobday’s story
  - CARES® (C = Connect with the person, A = Assess behavior, R = Respond appropriately, E = Evaluate what works, S = Share with others)
- HCI and Small Business Innovation Research grant mechanisms from the National Institute on Aging

Publications

- Hobday, J.V., Gaugler, J. E., & Mittelman, M.S. (2017). The feasibility and utility of online dementia care training program for hospital staff: The CARES® Dementia-Friendly Hospital™ Program. *Research in Gerontological Nursing, 10,* 58-65.
- Sarkinen, A., Shah, A., Shah, A., Hobday, J. V., & Gaugler, J. E. (2017). Improving dementia caregiving through interactive web design with the CARES® Dementia-Related Behavior online training program. *SAGE Research Methods Cases*. doi: http://dx.doi.org/10.4135/9781526423665
- Gaugler, J. E., Hobday, J. V., Robbins, J. C., & Barclay, M. P. (2016). Direct care worker training to respond to the behavior of individuals with dementia: The CARES® Dementia-Related Behavior™ online training program. *Gerontology and Geriatric Medicine, January-December,* 1-11.
- Gaugler, J. E., Hobday, J. V., Robbins, J. L., Hobday, J. V., Savik, K., Smith, S., & Gaugler, J. E. (2010). Feasibility of internet training for care staff of residents with dementia: The CARES® program. *Journal of Gerontological Nursing, 36,* 13-21.& Barclay, M. P. (2015). CARES® Dementia Care for Families™: Effects of online, psychoeducational training to enhance person-centered care approaches. *Journal of Gerontological Nursing, 41,* 18-24.
- Gaugler, J. E., Hobday, J. V., & Savik, K. (2013). The CARES® Observational Tool: A valid and reliable instrument to assess person-centered dementia care. *Geriatric Nursing, 34,* 194-198.
- Hobday, J. V., Savik, K., & Gaugler, J.E. (2010). An internet-based multimedia education prototype to enhance late-stage dementia care: Formative research results. *Geriatric Nursing*, *31,* 402-411.

CARES® Observational Tool

- From: Gaugler, J. E., Hobday, J. V., & Savik, K. (2013). The CARES® Observational Tool: A valid and reliable instrument to assess person-centered dementia care. *Geriatric Nursing, 34,* 194-198.

Demonstration of CARES®

- Hobday, J.V., Gaugler, J. E., & Mittelman, M.S. (2017). The feasibility and utility of online dementia care training program for hospital staff: The CARES® Dementia-Friendly Hospital™ Program. *Research in Gerontological Nursing, 10,* 58-65.

CDFH

- Hospitalization often places older adults at risk for many complications (Thornlow, Oddone, & Anderson, 2014), and these challenges are magnified for those with Alzheimer's disease or related dementias.
- Nursing assistants (NAs) and allied health workers (AHWs) voice considerable frustration about caring for individuals with dementia (Hynninen, Saarnio, & Isola, 2015; Marx et al., 2014).
- A meta-synthesis of qualitative research identified over-arching themes related to NAs'/AHWs' challenges (Turner, Eccles, Elvish, Simpson, & Keady, 2015):
  - Overcoming Uncertainty When Delivering Care;
  - Inequality in the Quality of Care Provided to Individuals With Dementia;
  - Recognizing the Benefits of Person-Centered Care but Not Being Able to Deliver it Due to Constraints of the Environmental and Wider Organizational Context; and
  - Need for Training

CDFH

- Several educational programs and approaches (often provided over the course of several days) have attempted to enhance NAs'/AHWs' training and have been evaluated.
- Dissemination of evidence-based training has been limited due to the necessity of costly in-person delivery and targeted staff inclusion.
- Training approaches should be accessible to NAs/AHWs in a fast-paced, technologically advanced acute care setting.

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CDFH

- The current project developed and tested the feasibility and utility of the CARES® Dementia-Friendly Hospital™ (CDFH) Program, a 4-module, online training program that focuses on the individual care provider and is applicable to any NA/AHW.
- The CDFH relies on evidence-based content (Galvin et al., 2010; Mittelman, Epstein, & Pierzchala, 2003; Silverstein & Maslow, 2006), delivered in a compassionate and person-centered approach in an online, easily accessible format.
- The objectives of the current study were to (a) determine whether dementia care knowledge significantly increases following completion of CDFH, and (b) examine NAs'/AHWs' perceptions of utility and satisfaction with CDFH.

Methods: CDFH Development

- The development of CDFH was based on interactive design principles (Merkt, Weigand, Heier, & Schwan, 2011; Zhang, Zhou, Briggs, & Nunamaker, 2006).
- Content was presented in a variety of educational and interactive media approaches to engage learners throughout the program.
- These approaches integrate real, unscripted video footage of interactions between real patients with dementia, their families, and caregivers, as well as video interviews with real staff members and dementia experts.
- Instructional design, development, and evaluation of the modules followed the ADDIE methodology: Analysis, Design, Development, Implementation, and Evaluation (Forest, 2014).

Methods: CDFH Development

- Investigators collaborated with the Alzheimer's Association and a group of 13 national expert consultants to create, review, and revise content for four prototype online CDFH modules.
- Development of each module was also informed by the evidence-based content (Galvin et al., 2010; Mittelman et al., 2003; Silverstein & Maslow, 2006).
- All content was developed at a 6th- to 8th-grade reading level.
- Research-based characteristics of effective adult learning mechanisms and principles (Davis et al., 2009; Wingfield & Black, 2005) were also incorporated throughout the modules, including multiple examples to explain key points; material relevant to NAs'/AHWs' work-related responsibilities; asking NAs/AHWs to engage with and actively use the information presented; and additional practice opportunities with note-taking devices, worksheets, and opportunities for reflective response.
- Demonstration

Module	Learning Objectives (After completing this module, you will be able to:)	Module Structure
Module 1: Introduction to Dementia-Friendly Care	• Explain why dementia is increasingly common in hospitals today, particularly in older patients. • Identify three signs or symptoms that could suggest a patient has dementia. • State why each patient with dementia is unique. • List at least three ways to make a positive difference in the care of patients with dementia.	• 12 screens • 3 videos (total running time: 6:41 minutes)
Module 2: Communicating with Patients	• List the basic steps to follow when starting an interaction with a patient who has dementia. • Identify what each letter stands for in the CARES® Approach. • Name three ways that families can help provide better care for patients with dementia.	• 13 screens • 5 videos (total running time: 12:10 minutes) • 1 video vignette (total running time: 2:55 minutes) • 1 interactive activity • 2 tips
Module 3: Dementia-Related Behavior	• State four ways that dementia can affect a person's ability to communicate. • List three problems that are common when communicating with patients with dementia. • Use the CARES® Approach in responding to dementia-related behavior.	• 13 screens • 5 videos (total running time: 3:23 minutes) • 3 interactive activities • 1 tip
Module 4: Wandering and Falls	• Explain what is meant by the term "wandering." • List five reasons why patients with dementia might wander and some positive ways to respond. • State three reasons why patients with dementia are at an increased risk for falls, and identify at least five ways to help prevent falls.	• 7 screens • 3 videos (total running time: 3:37 minutes)

TABLE 1

Descriptive Sample Information ($N = 25$)

Variable	Mean (*SD*)
Age (years)	41.36 (13.29)
Time working for current employer (years)	9.73 (7.91)
Time working as ~~an~~ allied health worker (years)	13.17 (11.62)
	n (%)
Gender (female)	24 (96)
Race	
White	21 (84)
Black or African American	3 (12)
Two or more races	1 (4)
Ethnicity: non-Hispanic/Latino	25 (100)
Marital Status	
Married	16 (64)
Never married	5 (20)
Separated	3 (12)
Divorced	1 (4)
High school education or higher	25 (100)
Certified nurse assistant	13 (52)
Have used a computer before	25 (100)
Own a computer	25 (100)
Have taken an online training class	24 (96)
Own a tablet or have regular access to one	19 (76)
Have regular access to a smartphone	23 (92)
Have regular access to high-speed internet	24 (96)

Changes in Knowledge

- The average duration from pretest to posttest was 7.96 days (SD = 9.94 days).
- 80% (n = 20) indicated a gain in dementia knowledge, 8% (n = 2) showed no change, and 12% (n = 3) demonstrated a decrease in knowledge.
- Participants, on average, answered 82.2% (SD = 10.71%) of the knowledge items correctly at pretest and 91.6% (SD = 6.08%) correctly at posttest.
- The results of the paired t test demonstrated that this increase in knowledge was statistically significant ($t = 11.5$, $df = 24$, $p < 0.001$).
- Knowledge test items

TABLE 2

Percentage of Hospital Care Staff Who *Strongly Agreed* or *Agreed* on CDFH Satisfaction Items

Item	% *Strongly Agreed/Agreed*
1. I am more confident about my skills in dementia care after completing this training program.	100
2. The program gave me new ideas on how to care for a patient with memory loss or dementia.	100
3. I enjoyed learning with this internet-based training program as opposed to attending a live class.	80
4. I have a better understanding of the changes in thinking that are associated with dementia after completing the training program.	100
5. I am more confident and comfortable in communicating with someone with dementia since completing this training program.	100
6. I feel more confident and comfortable caring for a patient with dementia than I did before I completed this training program.	88.8
7. The CDFH program contained the right amount of information for me.	96
8. The directions for using the program were clear.	96
9. The program held my interest.	96

Note. CDFH = CARES® Dementia-Friendly Hospital™.

Open-Ended Responses

- What participants liked best about CDFH
  - CDFH's realistic, engaging, interactive video scenarios and personal interviews (9 comments);
    - One participant was impressed with "videos of different scenarios and how to use what we learned."
  - CDFH's ease of use, clarity, and convenient format (12 comments);
    - One participant commented that the program was "easy to understand, intelligent, and accessible."
  - How CDFH increased their knowledge of dementia and coping skills (12 comments).
    - One participant mentioned that CDFH offered "hints on not scaring a patient, and showing understanding and patience."

Open-Ended Responses

- What participants did not like about CDFH
  - One half of participants replied with some variant of “there was nothing I did not like about the program.”
  - Five participants noted that the patient stories and hospital and personal experiences presented were “good but there is more content than needed.”
  - Three participants indicated that the material in CDFH tended to be repetitive.
- What participants would tell others about CDFH
  - “It was easy to follow. You learn ways to work with those that have dementia. I think it will help…to be more patient and understanding.”
  - “[The program is] informative on examples to do with patients with dementia/Alzheimer’s [sic], how to redirect them, keep routines, etc.”
  - I did recommend participation…because…[the program is] informative, comprehensive, concise, and in many ways validating to what/how we are caring for this patient demographic.”

Discussion

- The current results suggest that the use of a portable, asynchronous, interactive online training module for NAs/AHWs can help improve their knowledge as well as their perceived skills, compassion, and adoption of a holistic approach when caring for individuals with dementia.
- An essential step to forging more positive care relationships in hospital settings is dementia care training that is delivered flexibly to meet the needs of NAs/AHWs and care organizations.

Discussion

- The CFDH is a portable, potentially cost-efficient approach to training NAs/AHWs in hospitals via the CDFH.
- Although the findings are admittedly preliminary, the study offers an intriguing alternative to current staff training approaches to improve dementia care quality in hospitals and, if its efficacy is further established, has high potential for translation and implementation.
- The limitations of knowledge as an outcome.

Limitations

- Not all participants may have had regular care contact with patients in the hospital; of 12 participants who were not NAs and identified as technicians, six did not clearly indicate their role.
- The knowledge measure was specific to this pretest/posttest evaluation, but was not developed via formal psychometric testing.
- The open-ended posttest survey satisfaction questions included language that may have limited negative feedback.
- The small sample and lack of a control group do not permit definitive conclusions.
- Thirteen participants did not complete the full pretest/posttest evaluation, which may have introduced selective bias into the results.

Future Considerations

- NAs/AHWs who are trained via CDFH could elicit more cooperation with care, helping patients feel safe and reduce their distress, thus avoiding medical restraints, extended hospital stays, injuries, unexpected wandering, and re-hospitalization.
- NAs/AHWs who achieve a level of dementia care competence facilitated by CDFH may also experience increased job satisfaction and better personal health, and remain in their jobs longer.
- Future controlled evaluations of CDFH among NAs/AHWs who provide care to individuals with dementia in hospital settings could integrate this novel, efficient training approach with additional system-level approaches to make these environments “dementia-capable” (Borson & Chodosh, 2014, p. 395).
- In addition, examining the influence of CDFH on key outcomes by comparing a CDFH-only, a CDFH-mentoring/systems-change pair, and control group could further ascertain the efficacy of this promising training strategy.

Questions & Discussion

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