

## **1. Summary of Project Aims**

The overall purpose of this evidence-based project was to improve the safety and quality of care for persons with dementia admitted to acute care, through a dementia friendly hospital initiative. The specific aims for this project were to: i) tailor an existing education program around dementia care for nurses and patients technicians, based on the results of focus groups; ii) implement and evaluate a multi-faceted intervention to improve dementia acute care that included staff education, a tailored activities program for patients with dementia in collaboration with occupational therapy, implementation of best evidence for pain and cognitive assessment in people with dementia, and hospital-wide dementia awareness event.

## **2. Conceptual Underpinning**

The philosophy of person-centered dementia care underpinned this project. Person-centered care has been recognized as a standard for holistic, best-practice care for people with dementia, a philosophy of care that attempts to understand the world from the perspective of the person with dementia and provide an environment that is supportive of their needs. We used a knowledge translation framework, the PARIHS framework, tailoring the existing evidence to support better dementia care to the local context. Dementia care champions supported the implementation of the project.

This project was a collaboration between a School of Nursing, Occupational Therapy, and an acute care hospital. University Hospital is a 603-bed general medical and surgical facility with approximately 22,810 admissions annually. The research team included the executive director of the Center for Nursing Excellence at University Hospital, a research faculty member with expertise in dementia care from the School of Nursing, an occupational therapist from the School of Health Professions who has also has expertise in care for the elderly with dementia, three nurse educators assigned to the three selected medicine and neurology units who have been identified as dementia champions, and a research assistant. This was a timely initiative, given the establishment of the *Glenn Biggs Institute for Alzheimer and Neurodegenerative Diseases*. University Hospital serves as the primary admitting hospital for these patients. Comprehensive care for persons with dementia and their families would not be complete without ensuring best practice during a hospitalization.

## **3. Methods and Summary of Findings**

A multi-faceted intervention was implemented during the project and each component will be reported on separately, with procedures and results. Prior to initiating the project, the protocol was submitted to the Institutional Review Board and because of the quality improvement nature of the project was deemed to be non-regulated research.

**Dementia education program.** Prior to undertaking the dementia education program, focus groups were conducted with nurses and patient technicians to gain a better understanding of the needs and perspectives of nursing staff in an acute care hospital relative to caring for a patient with dementia and the extent to which the care they felt that they were able to provide person-centered care. We used a qualitative descriptive design, using thematic analysis to analyze the transcripts from the focus groups. A total of nine focus groups and two individual interviews were conducted between December 2017 and April 2018. Focus groups ranged from two to 12 participants, with an average of five participants per group. There were 24 registered nurses and 11 technicians who participated in the focus groups with 4 groups conducted with the nursing staff, 4 groups conducted with PCTs, and one mixed group. Further, two individual interviews were conducted with PCTs when no other individuals were available to participate in a focus group. Focus groups lasted approximately one hour and the individual interviews lasted 15 minutes. Nurse participants were 80% female, with a range of 4 months to 17 years of experience in their

current position, on average 5 years, with the majority prepared at the baccalaureate level or higher. All nurse participants in the focus groups had previously provided care professionally for patients with dementia and several participants were also caring for a family member with a diagnosis of dementia. PCT participants were 50% female and were in their current position approximately 5 years. Consistent across focus groups and individual interviews was the value of person-centered care and the desire to provide the best care for patients with dementia. Participants described wanting to know the patient as a person: *“It’s just knowing them. Not everything would be the same care; it depends on who you’re taking care of.”*

The essence of person-centered care as described by the participants was caring and this was at the heart of their work with patients with dementia (Figure 1). Central to caring, participants discussed how communication, education, and the environment served to support or detract from providing person-centered care. Within each theme, sub-themes related to experience and training to care for persons with dementia, personal experience with dementia, identifying creative interventions to improve care for the patient with dementia communication with the individual, family, and team, and a supportive environment for caring highlighted the challenges and the opportunities in caring for persons with dementia in acute care.

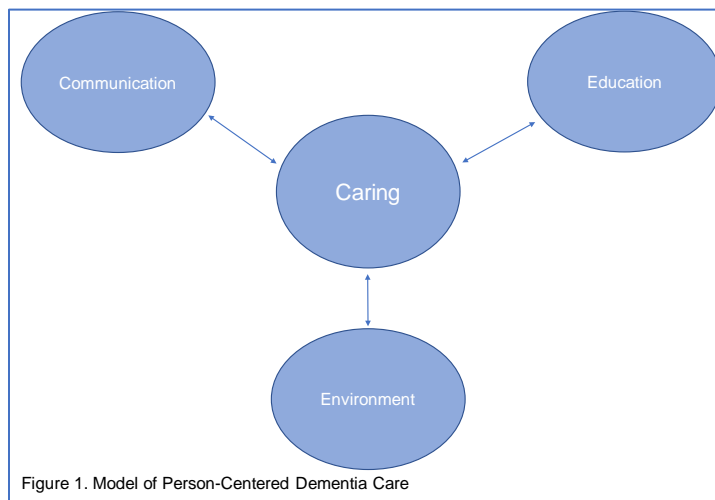


Figure 1. Model of Person-Centered Dementia Care

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A manuscript describing the results of the focus groups is near completion and will be submitted to “Dementia” by early April.

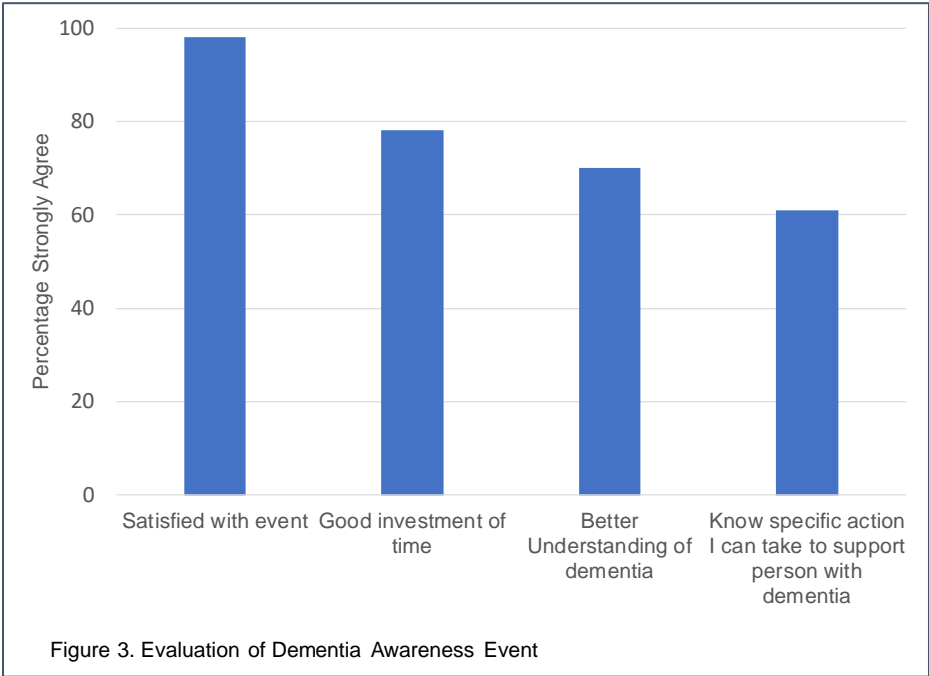
Based on the gaps in education to provide best practice for dementia care, the curriculum from the Dementia friendly hospital initiative was tailored to meet the needs of the staff of this facility on terms of numbers and available time. The program was delivered by three nurse educator dementia champions between July and December 2019 and is ongoing. Three approaches have been used to deliver the education. For all patient technicians, they will receive the ‘Dementia Friends’ curriculum, a one-hour interactive presentation that provides an overview of dementia, the experience of living with dementia, with a focus on communication techniques. All nurses working in medical/surgical floors receive a one-hour curriculum that goes into more depth about dementia as well best practice in acute care including cognitive screening. Nurses who are identified to work more closely with patients admitted to acute care with an underlying dementia undergo the above training and also complete the Second Wind Dreams® Virtual Dementia Tour® (VDT), a simulated exercise where trained facilitators guide participants outfitted with patented devices that alter their senses to complete common tasks and exercises. The outcomes of the VDT are: i) improved knowledge about the physical and cognitive challenges faced by those living with dementia; ii) improved care for people living with dementia. To date, 61 classes have been held with 366 patient technicians and 841 nurses have completing the education curriculum. This is a much greater than we had projected in the proposal and the training has been adopted by the hospital as an ongoing program to ensure sustainability of dementia care knowledge by the staff. Participants complete a scale developed by Palmer et al. (2014) to measure knowledge (7 items), attitudes/practices (6 items) and confidence (7 items) related to dementia immediately before and after completion of the education program. Data analysis is ongoing so we do not have

results to report here but once these are analyzed, we will prepare a manuscript for publication. We are also capturing mean monthly sitter hours for patients with dementia on the selected units, number of falls, and number of aggressive patient behavioral incidents. These data will be retrieved from the electronic health records on a monthly basis throughout the project and presented as time-series data.

**Creation and implementation of the individualized activities program.** A diversional activities program was created by occupational therapy and nursing, designed to provide hospitalized patients with varying stages of dementia to participate in meaningful, patient-centered activities to keep them engaged and reduce undesired behaviors. The activities have been coded according to the level of dementia and their appropriateness (Figure 2). Once nursing identifies a patient with dementia who potentially could benefit from the activity program, an order is written by nursing and then occupational therapy evaluates the individual and provides appropriate activities. Occupational therapy works with patient technicians to engage the patients in the selected activities. The Diversional Activity Program has served a total of 241 since we started tracking the number of participants in September 2019. A pilot study (n=6) was undertaken with the initiation of the diversional activity program to examine its effect on the use of video monitor technicians (VMT) for patients with an admitting diagnosis of dementia/altered mental status. There was a 53% lower rate of VMT intervention overall when diversional activities were used. This provides initial support for the role of the diversional activity program in reduce the need for VMTs, also showing the potential cost saving with the cost of VTM at \$30/day while cost for activities supplies used in this pilot were \$3.75. We are planning to conduct a large-scale study focused on the diversional activity program based on the findings of the pilot reported here.

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| <p style="text-align: center;"><b>Early Stage Dementia*</b></p> <p><b>You know this patient as:</b></p> <ul style="list-style-type: none"> <li>• "What should I do now?"</li> <li>• "I need to go to work/home."</li> <li>• "They took my bag!"</li> <li>• "The nurse has my stuff!"</li> <li>• "They said all this. No one is talking me anything!"</li> <li>• Just ate, but insists nurse's eaten</li> <li>• Restless, easily bored</li> <li>• Apathetic / No interest</li> <li>• May have periods where they appear to not have cognitive difficulties</li> </ul> <p><b>What we can do for them:</b></p> <ul style="list-style-type: none"> <li>• Create structure</li> <li>• Provide a routine</li> <li>• Set out supplies ahead of time</li> <li>• Give about upcoming tasks but phrase it as "I could use your help."</li> <li>• Listen &amp; limit interruptions</li> <li>• Provide sense of control</li> </ul> <p><b>*Can also be used with confused/forgetful patients</b></p>   | <p style="text-align: center;"><b>Moderate Stage Dementia*</b></p> <p><b>You know this patient as:</b></p> <ul style="list-style-type: none"> <li>• Lack of self-control</li> <li>• Restless / Moody</li> <li>• No filter with social comments / verbally impulsive</li> <li>• Gets into personal space</li> <li>• Annoying to others with inappropriate touch</li> <li>• Gets into things and sometimes breaks them</li> <li>• Usually follows instructions</li> <li>• Doesn't want to do things when it's time to do them</li> <li>• May be able to be easily redirected</li> </ul> <p><b>What we can do for them:</b></p> <ul style="list-style-type: none"> <li>• Monitor social interactions</li> <li>• Redirect to tasks and appropriate comments</li> <li>• Avoid stimulating settings</li> <li>• Break activity down into one-step parts and cue to complete each step</li> <li>• Use verbal, visual, and tactile cues; but don't nag</li> <li>• Positive reinforcement for socially appropriate behaviors</li> <li>• Consider gender/age of healthcare providers to minimize inappropriate comments</li> </ul> <p><b>*Can also be used with patients who are cooperative but socially inappropriate</b></p> |
| <p style="text-align: center;"><b>Late Stage Dementia</b></p> <p><b>You know this patient as:</b></p> <ul style="list-style-type: none"> <li>• Short temper, easily distracted</li> <li>• Short conversations</li> <li>• Refuses to participate and interact with others</li> <li>• Can become loud</li> <li>• May demonstrate negative behaviors</li> <li>• Won't sit down, springs up quickly</li> <li>• Can't settle down at night</li> <li>• Wanders into other rooms, follows people</li> <li>• Runnings, gets into things</li> </ul> <p><b>What we can do for them:</b></p> <ul style="list-style-type: none"> <li>• Provide sense of control</li> <li>• Ask for help/help</li> <li>• Simplify tasks &amp; communication with short statements</li> <li>• 1-2 step activities</li> <li>• Provide hands-on objects</li> <li>• Keep awake during the day</li> <li>• Match their communication style</li> <li>• Don't argue or pressure to do something</li> </ul> <p><b>* Can also be used with patients who are impulsive and/or agitated.</b></p> | <p style="text-align: center;"><b>End Stage Dementia</b></p> <p><b>You know this patient as:</b></p> <ul style="list-style-type: none"> <li>• Isolates self / Hard to connect with</li> <li>• Lethargic / Poor alertness/arousal</li> <li>• Eyes closed and doesn't seem to respond</li> <li>• Poor social interaction, poor eye contact</li> <li>• Won't take a bite or a drink, won't swallow, chokes or has a wet voice</li> <li>• Hard to move and gets rigid</li> </ul> <p><b>What we can do for them:</b></p> <ul style="list-style-type: none"> <li>• Providing meaningful sensory stimulation</li> <li>• Increase alertness/arousal</li> <li>• Simplify tasks and communication with short statements</li> <li>• Bring the stimuli 6-8 inches away</li> <li>• Firmer touch unless escalated</li> </ul> <p><b>*Can also be used with patients who are lethargic or minimally responsive.</b></p>  |

**Hospital-wide dementia awareness event.** Two one-half day dementia awareness events were held, one in January 2019 at University Hospital and the second in April 2019 at their second campus, Brady Green. Both events included similar activities with short presentations about Alzheimer’s disease and community resources for families living with dementia. At the event at Brady Green which serves a high number of Hispanics with some speaking Spanish only, presentations were given in both English and Spanish. The events included tables from approximately 15 community organizations with information available about resources for families living with dementia. Over 400 participants attended the two events. Many participants completed online training for Dementia Friends during the awareness days. Comments from the events included the importance about learning the resources



available in the community for families coping with dementia, a better understanding of dementia, the importance of the activity program for hospitalized patients with dementia, and the need for ongoing information about dementia and the available resources. Figure 3 presents results of the event evaluation.

Below is an image of a poster that was presented describing the awareness days.

| Background  | Implementation   | Implementation  | Results   |
|---|--|---|---|
| <p>Alzheimer's disease and related dementia disorders currently affect 5.7 million Americans. By 2025, this number will reach 7.1 million, and by 2050 will grow to 16 million. Texas has the 4th largest population of people with dementia at 360,000 with 352,920 unpaid caregivers providing the care. The number of individuals with Alzheimer's is expected to reach 490,000 by 2025.</p> <p>In San Antonio, pronounced demographic shifts in the population of older adults (187% increase in persons 65 years of age and older by 2050) carry with it a substantial increase in mortality and morbidity associated with Alzheimer's and dementia. Dementia is costly to the individual, the family, healthcare and society. Adults 65 years and older with dementia are reported to have over twice as many hospital stays as their age-matched counterparts without dementia.</p> <p>In 2018, the Texas State Legislature voted to incorporate the concepts of dementia friendly into the state plan, making Texas one of the major leaders in incorporating this concept and showing that enhancing public awareness can help improve the quality of life for people living with Alzheimer's and related dementia disorders and their caregivers.</p> | <ul style="list-style-type: none"> <li>A planning committee was organized to include representatives from: <ul style="list-style-type: none"> <li>University Health System, UT Health School of Nursing and Patient Family Advisory Council</li> </ul> </li> <li>Date, time and location were selected to ensure the events would be inclusive of both acute care and ambulatory care staff as well as the diverse population of the community.</li> <li>Community resources from a variety of sectors were asked to participate including long-term care planning, healthcare support organizations, senior service organizations and experts in dementia and Alzheimer's care.</li> <li>Speakers were scheduled to present information related to care, treatment and resources available to those patients and caregivers affected by dementia. <ul style="list-style-type: none"> <li>Bilingual speakers spoke at the second event.</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>Multiple visual and hands-on features were used during the events to attract attendance including an interactive giant inflatable brain, a piñata shaped like a brain and windmill flowers.  </li> <li>Volunteers were instrumental to the success by providing assistance in a variety of areas: <ul style="list-style-type: none"> <li>Registration &amp; feedback surveys, guiding attendees through inflatable brain and assisting at numerous interactive stations.  </li> </ul> </li> <li>Community resource tables at the event provided an opportunity for attendees to network and learn about available services.  </li> <li>Interactive art stations allowed attendees to learn about the healing properties of art and take home awareness bracelets and paintings that they created.  </li> </ul> | <ul style="list-style-type: none"> <li>Approximately 480 attendees participated in the two awareness events.</li> <li>Participants thanked the planning committee members verbalizing their gratitude for the events. <p><i>My favorite part of today's event was knowing there is help.</i></p> <p><i>I had no idea of the extensive resources available to caregivers as well as the patients.</i></p> <p><i>This is an excellent program to offer to the public and providers of care to people affected by dementia symptoms - to increase awareness and ways to alleviate mistreatment.</i></p> <p><i>I learned today that I am not alone and I can get help.</i></p> </li> </ul> <p><b>OVERALL POST EVENTS SURVEY</b></p>  |
| <p><b>Purpose</b></p> <p>In an effort to raise awareness about Alzheimer's disease and related dementia disorders the awareness events focused on education related to the diseases, available resources and the importance of creating an inclusive and compassionate approach to care. These type of events provide an opportunity for learning, knowledge sharing and interaction with community resources for patients, visitors, healthcare staff and community members.</p>   |  <ul style="list-style-type: none"> <li>Advertising the events to the intended audience was critical to attendance. <ul style="list-style-type: none"> <li>Printed and electronic flyers were shared at clinics throughout University Health System and UT Health.</li> <li>Invitations were shared on social media and sent to local health-related schools.</li> <li>Members of the City of San Antonio Senior Centers were also invited.</li> </ul> </li> </ul>  |    | <p><b>Conclusion</b></p> <p>Our awareness events proved to be a successful platform for allowing the exchange of information between the community and available resources. Attendees stated the events allowed them access to resources that were previously unknown to them to help support living with dementia or caring for someone with dementia. These events were effective for not only community members, but also healthcare staff as well, who often reported they were caregivers for someone living with dementia and they had a desire to learn more. Some attendees referred to the event as a "one-stop shop" for information and assistance and really appreciated all the resources provided.</p>  |

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## 4. Recommendations

The funding has provided an important collaboration between the School of Nursing and University Health System. Through this collaboration, we have been able to secure additional funding from the University Health System Foundation to support the diversional activities program. Further, the collaboration has resulted in University Health System playing a leadership role in Dementia Friendly San Antonio, a designation received by Dementia Friendly America in April 2019.

Recommendations from this project include the importance of gaining an understanding of the context before conducting this knowledge translation project. In conducting the focus groups to understand the perspectives of frontline staff in caring for patients with dementia, we were able to build on their strengths and address their concerns in the education program. By working with hospital management, we were also able to build dementia education into the structure for ongoing education, which will contribute to the sustainability of the project. Importantly we have connected this project with other activities related to dementia care such as training to conduct the virtual dementia tour, highlighting the work of the hospital during a local geriatrics conference, and building synergy between this project and the dementia friendly initiative, of which acute care is a critical partner. We partnered with occupational therapy in implementing this project and are now expanding to medicine. We would recommend inviting a multi-professional team who works with families with dementia from the beginning.

We are continuing to build on the project with a focus on evaluating outcomes including adverse events, length of stay, and qualitative feedback from families on the diversional activities program.