



# Cognitive Engagement Program

Nursing Fellowship in Evidence Based Practice  
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# Objectives

- Background
- Cognitive Impairment – An overview of delirium
- Cognitive Engagement Program
- Data Collection
- Sub topic – Nursing satisfaction
- Finding and Relevance
- Next steps

# Background

## Neurology floor

### High incidence of cognitive impairment

- Restraint use
- Sitter use
- Long term patients, those that are difficult to place due to cognitive impairment

**Isn't there something we can do to help these patients?**

# Cognitive Impairment

## **Delirium defined:**

Delirium is a sudden, severe, fluctuating confusion that is usually reversible. It involves a disturbance in mental function, including decreased awareness and confused thinking, and is characterized by the inability to pay attention or think clearly, disorientation, and fluctuations in alertness levels.

## **Risk Factors**

- **Increased age**
- **Dehydration**
- **Immobility**
- **Sensory impairment**
- **Stress**
- **Sleep disturbances**
- **Infection**
- **Underlying cognitive impairment – dementia**
- **Medication**

# Research

Overall the research shows that by keeping patients awake during the day and allowing them to sleeping at night, delirium is therefore decreased.


# PICO Question

Is the cognitively impaired patient on 10K less impulsive, due to receiving at least 30 minutes a day of volunteer engagement?

# Cognitive Engagement Program

- Kitty Yan, OT
- Research programs/ interviewed RN staff
- Hospital Elder Life Program
- When obstacles were encountered we would re-adjust, re-think, re-evaluate, and move forward
- Added the cognitive pyramid and incorporated volunteer services
- Built an activity closet
- Trained over 30 volunteers
- Presented to residents in 3 specialties and at 10K nursing education day
- Began monthly meetings with UBNPC

# Cognitive Pyramid

BEHAVIORS			INTERVENTIONS	
<ul style="list-style-type: none"> <li>• Ox4, Sphere of awareness: global, uses abstract thinking, multi-tasks</li> <li>• Plans future tasks, demonstrates carryover</li> <li>• Self-corrects, anticipates events</li> <li>• Demonstrates insight into condition</li> </ul>	<ul style="list-style-type: none"> <li>• Watches and discusses TV programming cogently</li> <li>• Independently manages extraneous stimuli</li> <li>• Memory intact, recognizes all team members</li> <li>• Anticipates need for assistance</li> </ul>	<p><b>Executive Function</b></p> <p>Unstructured Environment: Distraction Tolerated</p>	<ul style="list-style-type: none"> <li>• Collaborate on creating plan for the day</li> <li>• Allow for greatest freedom within the limits of pt's condition</li> <li>• Encourage empowered decision-making</li> <li>• Provide education regarding continued risk assessment</li> </ul>	
<ul style="list-style-type: none"> <li>• Ox3, Sphere of awareness: includes hospital environment</li> <li>• Alternates attention with ease</li> <li>• Able to recall new multi-step tasks</li> <li>• Plans for present</li> <li>• Acknowledges need for assistance</li> <li>• Requests resources to implement plan</li> <li>• Initiates use of correct strategy</li> </ul>	<ul style="list-style-type: none"> <li>• Self-focused behaviors: "Here and now thinking"</li> <li>• Demonstrates emerging insight</li> <li>• Watches TV and uses remote, recalls programming</li> <li>• May need cues to manage extraneous stimuli</li> </ul>	<p><b>Reasoning and Judgment</b></p> <p>Moderately Structured Environment</p>	<ul style="list-style-type: none"> <li>• Collaborate on plan for the day</li> <li>• Help pt take ownership of things pt can do</li> <li>• Discuss daily, seasonal events</li> <li>• Problem solve collaboratively</li> <li>• Support pt's goals for ADL and mobility</li> <li>• Break down information into tasks/steps</li> </ul>	
<ul style="list-style-type: none"> <li>• Ox1-2, possibly 3, sphere of awareness: include room environment</li> <li>• Alternates between 2-3 stimuli</li> <li>• Follows 3-step directions</li> <li>• May acknowledge existing problems</li> <li>• Can sustain attention 5-10 min</li> <li>• May exhibit impulsive behavior</li> </ul>	<ul style="list-style-type: none"> <li>• Behavior not consistent with pt's stated understanding of condition</li> <li>• May have memorized info but cannot implement independently</li> <li>• Watches TV, loses remote, forgets programming</li> <li>• Needs assistance to manage extraneous stimuli/safe ambulation</li> </ul>	<p><b>Memory/ New Learning</b></p> <p>Highly Structured Environment: Minimal Distraction</p>	<ul style="list-style-type: none"> <li>• Provide external orientation aids – write on whiteboard correct date, place, situation and simple goals for the day</li> <li>• Provide assist to identify when problem is occurring, help generate possible solutions</li> </ul> <ul style="list-style-type: none"> <li>• Focus on one activity or one person at a time</li> <li>• Help pt prioritize activities provide immediate and objective feedback during the activity</li> <li>• Help prioritize top 2 goals for pt to focus on</li> <li>• Acknowledge frustration</li> </ul>	
<ul style="list-style-type: none"> <li>• Ox1-2, sphere of awareness: extends to bedside table</li> <li>• Alternates between 2 stimuli</li> <li>• Demonstrates spontaneous motor movements after prompting</li> <li>• Follows 2-step directions</li> <li>• Can sustain attention 2-5 min</li> <li>• May demonstrate emerging awareness</li> </ul>	<ul style="list-style-type: none"> <li>• of existing problems, but lacks insight into deficits</li> <li>• May watch TV but does not track content</li> <li>• Pt may hyper-focus on extraneous stimuli</li> <li>• Poor insight into balance deficits</li> </ul>	<p><b>Environmental/ Spatial Awareness</b></p> <p>Highly Structured Environment: Minimal Distraction</p>	<ul style="list-style-type: none"> <li>• Post signage at bedside</li> <li>• Establish functional routine and activity</li> <li>• Allow for extra time for safe transfers</li> <li>• Gentle redirection, use repetition to increase pt's awareness</li> <li>• Identify problems and priorities for pt and give limited choice of solutions</li> <li>• Allow increased time to respond to</li> </ul> <ul style="list-style-type: none"> <li>• questions and give gentle redirection</li> <li>• Provide routine and consistency</li> <li>★ Frequent checks or round hourly</li> <li>★ Reinforce positive behavior and engagement in care</li> <li>★ Always cue pt before touching them</li> <li>★ Limit amount of responsibilities given to pt</li> </ul>	
<ul style="list-style-type: none"> <li>• Orients to name, sphere of awareness &lt;/= bed</li> <li>• Pulls on lines, sheets, exit-seeking</li> <li>• Redirecting pt is difficult, often not possible given reduced processing ability</li> <li>• Closes eyes frequently, does not sustain eye contact</li> <li>• May recall single-step task or have difficulty starting a task</li> <li>• May misperceive environment and/ or use common items inappropriately</li> </ul>	<ul style="list-style-type: none"> <li>• (brush hair with toothbrush, does not register TV)</li> <li>• No memory of care providers</li> <li>• May visually hallucinate</li> <li>• Often exhibits fear and distress/anxiety</li> <li>• Extraneous stimuli contributes to agitation</li> <li>• Minimal balance awareness</li> </ul>	<p><b>Attention</b></p> <p>Completely Structured Environment: Non-distracting</p>	<ul style="list-style-type: none"> <li>• Close (18 inches) engagement with eye contact to cue</li> <li>• Engage pt in a simple/familiar task: i.e., washing face, combing hair, etc.</li> <li>• Reassure pt he is in safe environment</li> <li>• When mobilizing use second person for safety, supervised when out of bed</li> <li>• Don't insist on re-orientation, use distraction when indicated</li> <li>• Gentle redirection providing safety reassurance</li> </ul> <ul style="list-style-type: none"> <li>• Tell pt what he can do, not what he can't do</li> <li>• Guide rather than correct</li> <li>• Provide a verbal and tactile prompt to start the activity, use hand-over-hand guidance to perform a task</li> <li>• Allow extra time for appropriate pt response to 1-step command</li> <li>• Keep focus on here and now, use short simple phrases</li> <li>• Include starred (★) interventions found in Environmental/Spatial Awareness</li> </ul>	
<ul style="list-style-type: none"> <li>• Alerts to name/tactile stimulation</li> <li>• Pt may open eyes briefly to verbal/ tactile stimulus</li> <li>• Gaze non-focal</li> </ul>	<ul style="list-style-type: none"> <li>• Unaware of environmental cues including TV</li> <li>• Brief but unsustained eye contact</li> <li>• Demonstrates 1 motor movement following passive movement</li> </ul>	<p><b>Arousal</b></p> <p>Completely Structured Environment: Non-distracting</p>	<ul style="list-style-type: none"> <li>• Assist with face washing, hand/foot massage</li> <li>• Gentle sensory stimulation, i.e. gentle voice, calming music</li> <li>• Passive range of motion</li> </ul> <ul style="list-style-type: none"> <li>• Completely dependent on others for safety, provide and manage safe environment</li> <li>• TV is untherapeutic</li> <li>• Include starred (★) interventions found in Environmental/Spatial Awareness</li> </ul>	



# Next Steps

- Update the volunteer schedule
- Start collecting data
- Volunteers see the patient, mark time spent on census
- Collect bed/ chair exit data (volunteer versus control – no volunteer)
- Work with Dana Womack to separate out the data



## Sub question (PICO)

Did the implementation of the  
Cognitive Engagement Program  
increase nursing satisfaction on 10K?

# Nursing Satisfaction Research

One meta analysis study looked at 17 recent articles and suggests that nursing satisfaction can be separated into 3 areas:

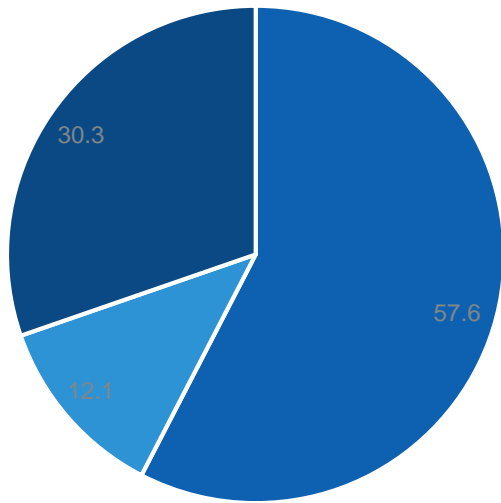
- Intra-personal – positive outlook, age, experience, education
- Inter-personal – autonomy, professional relationships/teamwork, providing direct patient care (nature of the work and time allowed to complete), control over one's own prioritization of work
- Extra-personal – government and organizational (policies, resources available, ability for professional growth)

# Nursing involvement

- Interviews
- Education
- *“Knowing How We Are Doing”*  
Board
- Survey

## Nurses on 10K

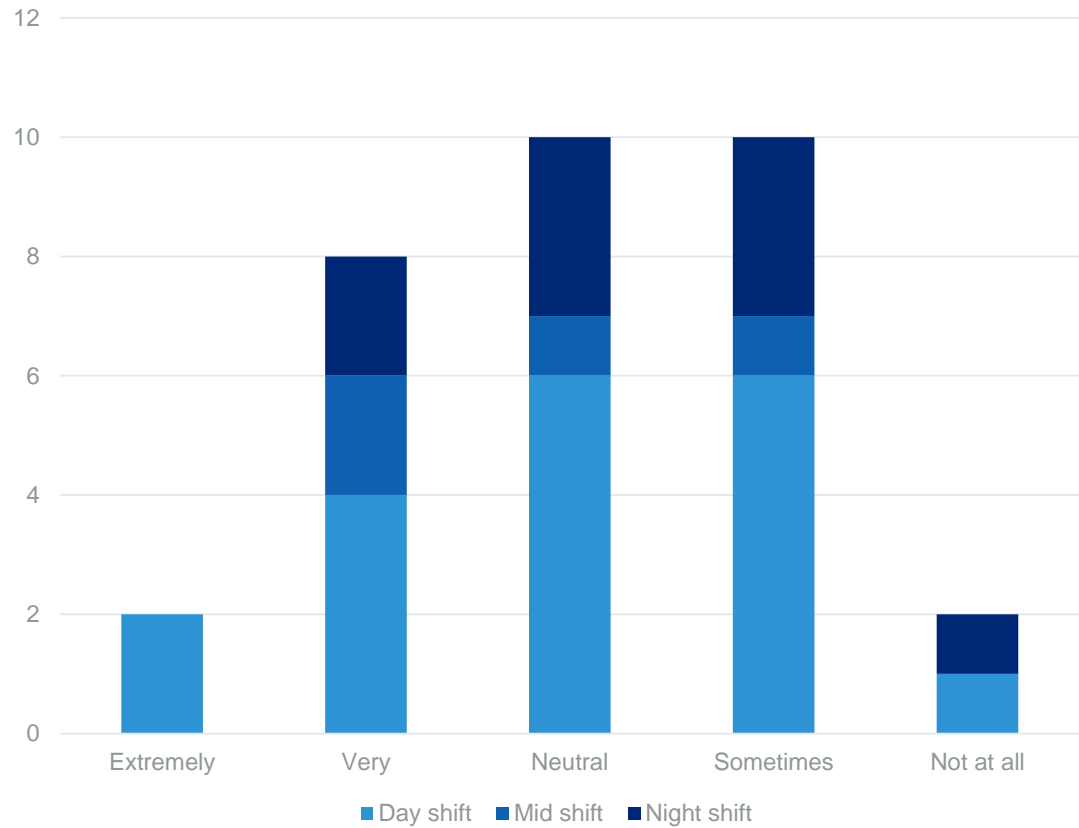
■ day shift ■ mid shift ■ night shift ■



# Survey breakdown

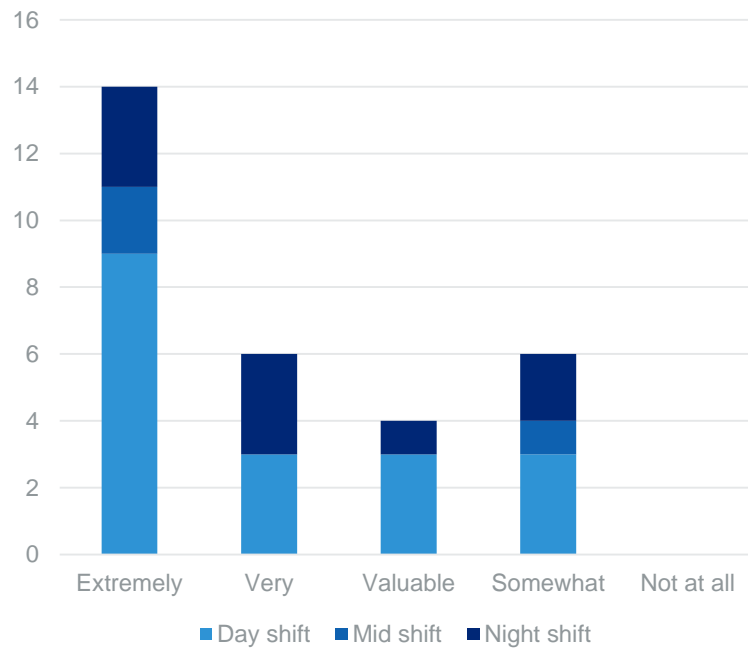
N= 33 of 51 staff nurses responded

## How often do you use volunteers

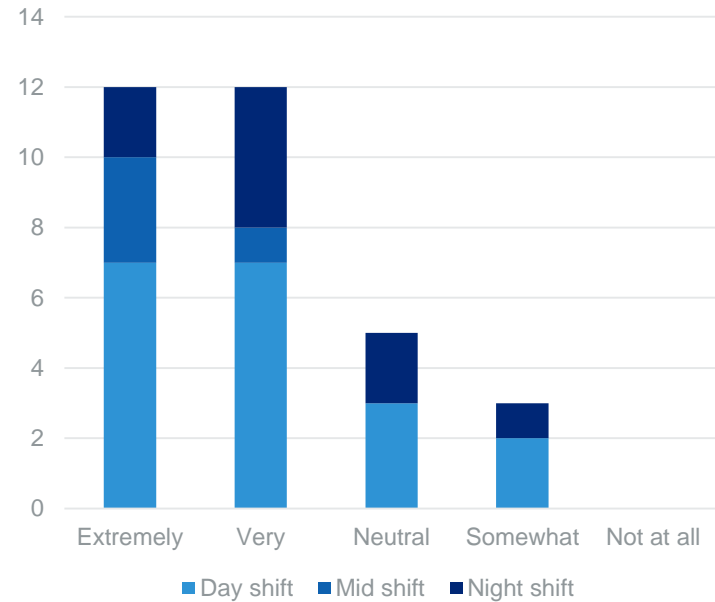


# Survey Results

How valuable do you feel the program is



Do you believe the volunteer program increases your feelings of satisfaction as a nurse on 10K



# Data Relevance on Nursing Satisfaction

- Soft dollars
- Less nursing turn over
- Better patient experience



# Next Steps

## Where do we go from here?

- Continue to grow the program
- Look for continued funding to make the program more sustainable
- Collect the chair/ bed exit data
- Collect direct financial relevance – hard and soft dollars

## 3 Points to Remember

1. This began as a simple idea. An amazing program was created by following the evidence.
2. The results that we currently have and that we hope to see, will benefit not only the patient, but also the nurse, and the entire health system.
3. The Cognitive Engagement Program continues to grow, adapt, and to become a more self-sustaining program.

# Findings

## What we found

Potential increase in nursing satisfaction

- Autonomy
- Collaboration/  
teamwork
- Control over  
prioritization
- Focus on patient  
care

## What we hope to find

Decrease in impulsivity  
correlated with a  
decrease in bed/ chair  
exit alarms

# References

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