Implementing a Behavior Management Program for Alzheimer's Patients Experiencing Psychosis in a Memory Care Setting

Shereka Jenkins
Touro University Nevada
Dr. Julie Astrella, DNP, RN
10/24/2022

Background (1/2)

▶ Behavioral symptoms are a diverse category of non-cognitive clinical signs that occur in individuals diagnosed with Alzheimer's disease and other related dementias (Chen et al., 2017).

▶ Some people may refer to behavioral symptoms as neuropsychiatric symptoms, which in essence, denote the psychological, behavioral, and cognitive sequelae of brain illnesses, including a tapered and exclusive category of psychological and behavioral sequelae, also referred to as psychological and behavioral symptoms of dementia (Chen et al., 2017).

▶ The term behavioral symptoms may refer to common behaviors that many times create challenges for families of individuals diagnosed with dementia.

▶ Some of these behaviors include argumentativeness, constant wandering, resistance to care, shadowing, repetitive vocalizations, hallucinations, delusions, agitation, apathy, and depression (Chen et al., 2017; El Haj et al., 2020).

▶ With worsening disease conditions, patients continue to experience higher levels of susceptibility to their respective environments. As such, they can experience features of behavioral symptoms emanating from the convergence of numerous interacting variables, both external and internal. (Lanctôt et al., 2017).
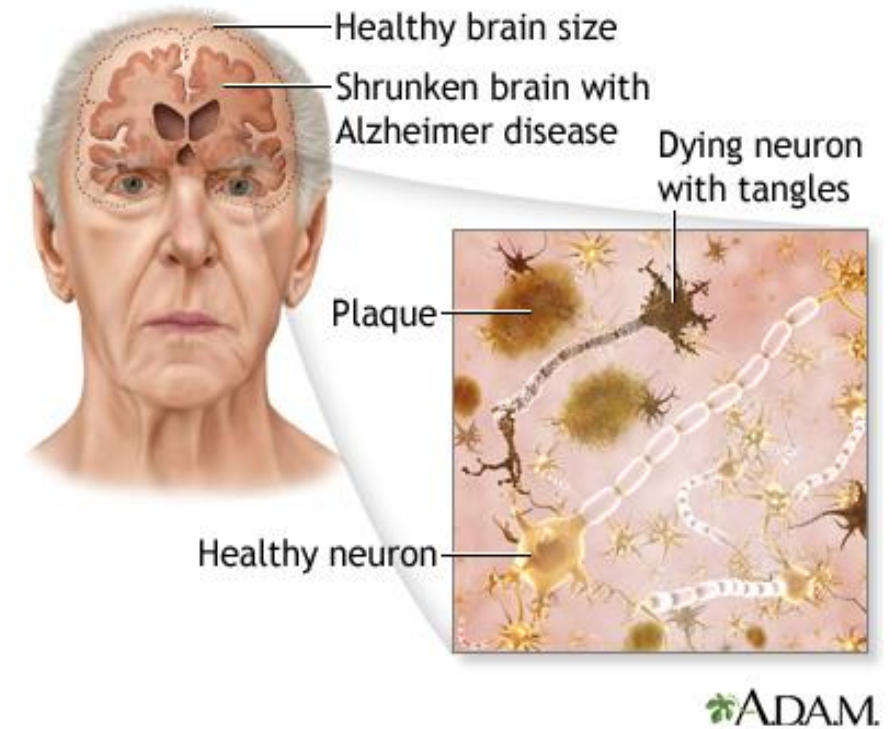

Fig. 1. Pathophysiology of Alzheimer's Disease

Background (2/2)

- Even though patients develop behavioral symptoms at any stage of disease development, some behavioral symptoms appear more frequently than others at various stages.

- Apathy and depression are often seen in the early-stages and in mild cognitive impairment, which may worsen as dementia progresses (Chen et al., 2017).

- Dementia patients also experience aggression, hallucinations, and delusional episodes more in later stages (Chen et al., 2017).

- Families of patients report apathy, which manifests as a sharp decline in motivation, and it is often accompanied by emotions and reduced goal-based cognitive activity and behavior (Nobis & Husain, 2018).

- Another commonly reported sign is agitation - high emotional distress, vocally disruptive behaviors, disinhibition, irritability, aggressive behaviors, and wandering - typified by excessive psychomotor activity (Koenig et al., 2016).
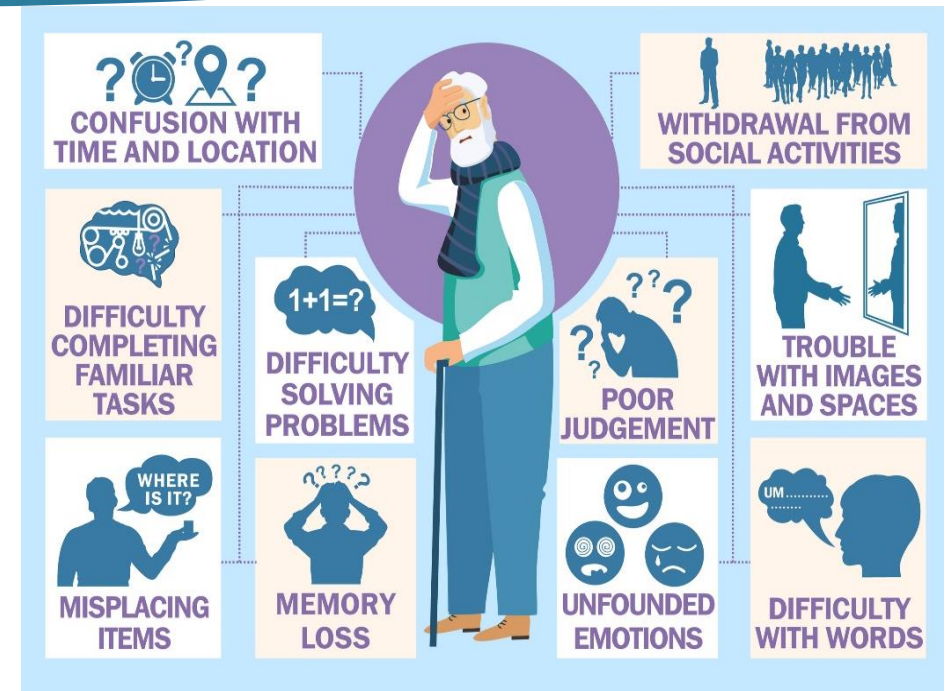

Fig. 2. Signs and Symptoms of Alzheimer's Disease

Problem Statement

- Behavioral symptoms often contribute to psychiatric admissions and nursing home placement and are associated with using restraints (Chen et al., 2017).
- They also hasten disease progression and patient risk of participating in dangerous activities, including drug and substance abuse.
- Besides worsening the patient's quality of life, managing behaviors, including repetitive vocalizations, wandering, and disturbances, are considered distressing and problematic aspects of providing care to patients diagnosed with Alzheimer's.
- Caregivers caring for patients exhibiting behavioral problems can be exposed to stress, especially if they are without formal training in dealing with the challenges of behavioral symptoms (Chen et al., 2017).
- To compound the problem, individuals experiencing behavioral issues have little insight concerning their behaviors or consequences for the people attending to them.
- It is essential to address these problems early and equip caregivers to provide targeted care for Alzheimer's patients with behavioral issues to improve the patient's quality of life.
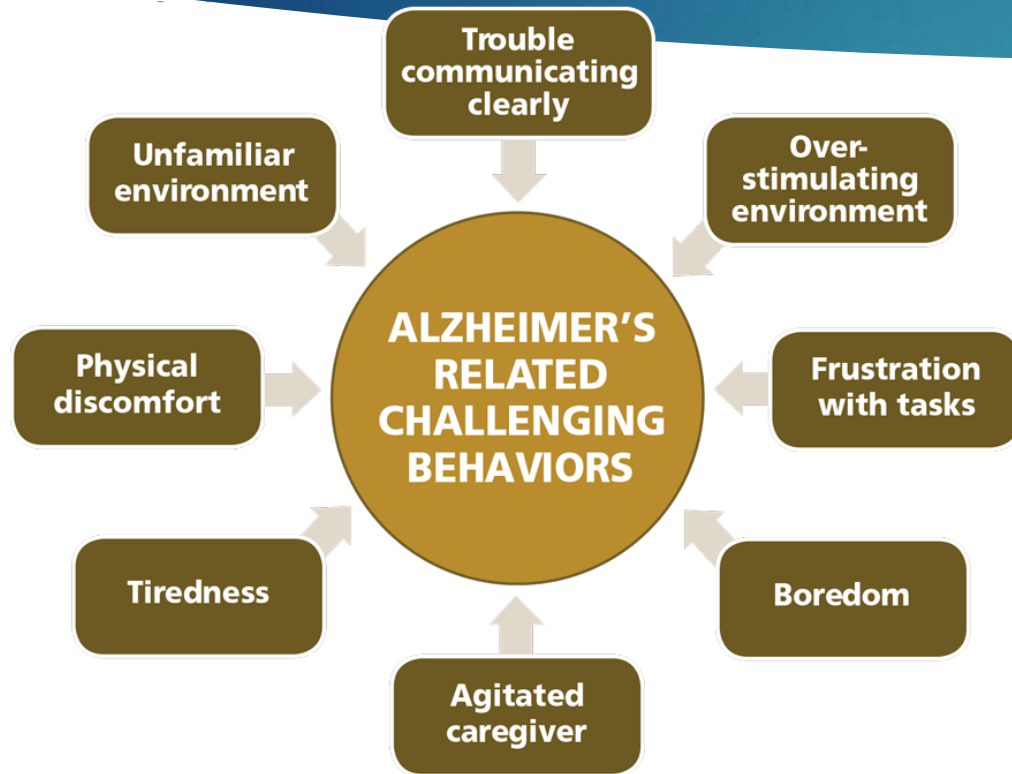
Project Aim and Objectives

Fig. 3. Challenging behaviors among Alzheimer's Disease patients

▶ The project aimed at establishing whether implementing a behavior management program can show improvement in Alzheimer's disease patients within four weeks.

▶ The following constitute the project objectives;

   ▶ To implement educational interventions to improve the knowledge of nurses on the utilization of behavior management interventions for the management of psychosis in patients diagnosed with Alzheimer's as evidenced by an improved Neuropsychiatric Inventory (NPI) score

   ▶ To reduce the severity of psychosis among Alzheimer's patients through the implementation of a behavior management program as evidenced by a reduction in psychotic symptoms in 4 weeks.

   ▶ To evaluate the implementation of the behavior management program.

Methodology (1/2)

- The review of the literature was done through a search of relevant scholarly articles on Cochrane, CINAHL, PubMed, Angeline, and PsycINFO platforms

- The implementation plan involved a behavioral management program for Alzheimer's disease patients.

- During the first week, nurses were enlightened on behavioral management interventions; during weeks 2-5, the intervention was implemented and evaluated at the Memory care institution located in Virginia, USA

- The population was divided into direct and indirect participants: The direct participants were the nurses at the facility, while the indirect participants were 20 patients.

Methodology (2/2)

▶ Data collection was done using the NPI tool to assess psychosis symptoms in patients by auditing five patient charts weekly.

▶ Research Ethics:

  ▶ The research prospects assured of beneficence

  ▶ Patient room numbers were used to assure patient confidentiality.

  ▶ Informed consent was sought from the staff nurses participating through recruitment letters.

▶ Data analysis was done using descriptive analysis to analyse chart reviews and NPI tools.

  ▶ The NPI tools indicate the progression of disease symptoms with continued care.
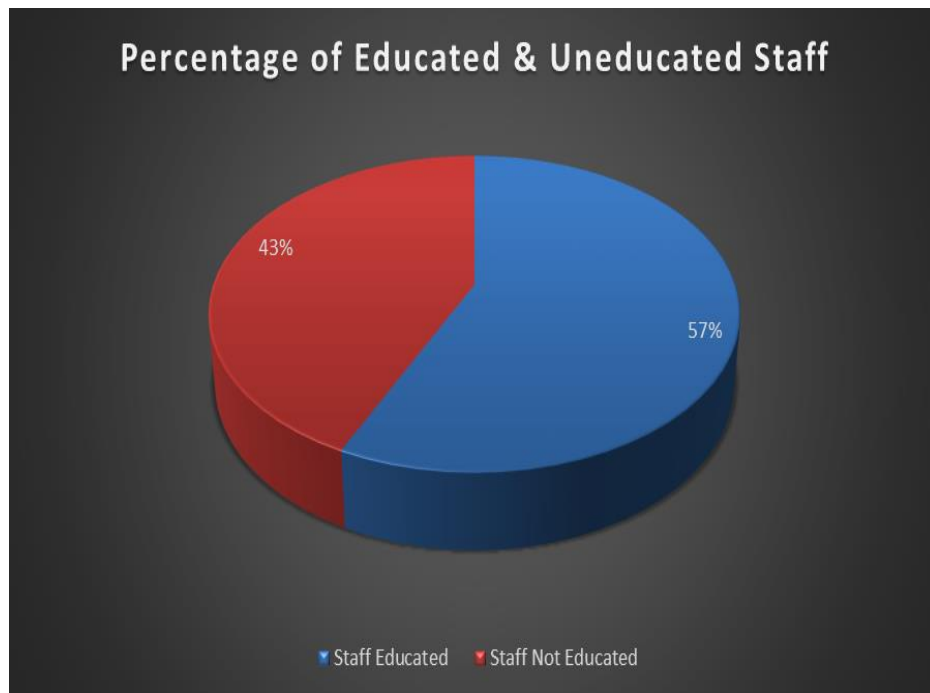
Results and Key Findings (1/2)

Fig. 4. Percentage of Educated and Uneducated Staff

- The project had positive impacts on the management of Alzheimer's disease.
- The educated staff were more than the uneducated
- The educated staff found it comfortable in using the NPI tool and the intervention of behavioral management.
- The educated staff were more and better enlightened than the uneducated staff
- Patients managed by the educated staff members had better profiles in progression against Alzheimer's disease symptoms.

Results and Key Findings (2/2)

- Patients who were managed by the behavioral management interventions showed a reduction in the severity of psychotic symptoms.

- Interventions that showed improved behavioral management include but are not limited to music therapy, pharmacological interventions, and reality orientation.

- Application of both pharmacological and non-pharmacological approaches boost care (Lee et al., 2019).

Tab. 1. Chart Audits for Compliance

Week	# Charts audited	#Patients assessed with NPI tool	# Patienst with Positive NPI scores	# Patienst that received an intervention
2	5	5	1	1
3	5	5	0	0
4	5	5	2	2
5	5	5	3	3
Total 20	20	20 (100%)	6 (30%)	6 (100%)

Discussion of Findings (1/2)

▶ The intervention reported positive outcomes, with no observed negative trade-offs or costs.

  ▶ Staff were comfortable using the tool and interventions with positive results regarding the number of patients being identified and receiving interventions.

▶ Once the nursing staff utilized the NPI tool and found some patients positive for psychosis, interventions were immediately implemented which showed reduced symptoms of psychosis as verified using the NPI tool to reassess the symptoms of psychosis.

▶ A reduction in the individual patients from pre- and post-intervention was seen, but the number of patients with positive NPI scores increased by the end of the data collection period.

  ▶ Some documented interventions included music therapy, reality orientation, bright light therapy, and pharmacological interventions.

  ▶ Cammisuli et al. (2016) reported positive changes in four domains, including appetite/eating disorders, aberrant motor behavior, dysphoria/depression, and aggression/agitation, which are common behavioral tendencies exhibited by people with a positive diagnosis for AD.

Discussion of Findings (2/2)

- The NPI and interventions had a good outcome in recognizing psychosis and reducing psychosis by utilizing the interventions.
  - Whereas the literature found only modest efficacy was reported with pharmacological interventions, a significant reduction in symptom severity was reported with nearly all the non-pharmacologic interventions (McClam et al., 2015).
- Following a specific process ensures that systems changes are made only after understanding the impact of those changes on the system and that interventions are based on an assessment of the variables maintaining problem performance or suppressing optimal organizational performance (McGee & Crowley-Koch, 2019).
- This project promotes system-level change because it is guided by evidence-based practice, strengthening the application of project-based interventions to improve patient outcomes (Edwards et al., 2018).

Significance and Implications

Usefulness

▶ The project is important because it aimed at ensuring that caregivers are well-equipped to provide targeted care for Alzheimer's patients with behavioral issues to improve patients' quality of life.

▶ It also introduced the tools for measuring the severity of psychosis and Alzheimer's to help caregivers in adopting the relevant strategies to help patients.

Implications and Next Steps

▶ The project informs policy because it stipulates when and how psychometric properties and tools such as NPI should be used to ensure that the health outcomes of patients with behavioral problems are improved.

▶ It also shapes nursing practice because it empowers nurses to use the NPI tool in measuring the severity of behavioral problems and increases their participation in patient education to support behavioral management.

Sustainability of the Project

- Implementing a behavior management program is a sustainable approach because it creates a consistent and evidence-based approach for providing care to patients suffering from Alzheimer's and psychosis.
- It also provides a long-term, cost-effective solution for managing patients suffering from Alzheimer's and psychosis.
- The site was surprised by the results and is making plans to keep the protocol in place as part of the care delivery process.
- There are no barriers to keeping this protocol long-term since the behavior management program was easy for staff to follow, which will make it easier for staff to continue to utilize the NPI tool and interventions for patients experiencing psychosis.

Conclusion and Recommendations

▶ Behavioral management therapy approaches effectively manage psychotic symptoms associated with Alzheimer's disease and should be adopted by healthcare institutions into care plans for Alzheimer's disease therapies and other psychological techniques.

▶ Nurses may not be aware of such interventions and thus must be educated on the same to improve care services.

▶ Further studies should be conducted to determine whether the NPI tool can be implemented concurrently with behavior management programs to help caregivers understand the strengths and limitations of the approach.

▶ Nurses should promote evidence-based practices in their work due to the efficiency seen with such and the promotion of research and better services when applying such techniques.

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