

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

Shereka Jenkins

Touro University Nevada

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Dr. Julie Astrella, DNP, RN

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## Abstract

**Problem:** This project studied if Alzheimer's patients would show improvement in psychosis when implementing a behavior management program.

**Background:** 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). Behavioral symptoms occur in clusters or syndromes depending on an individual's susceptibility to environmental conditions.

**Methods:** A quality improvement project in a selected memory care facility in Virginia was conducted to collect data and explore the project problem. 20 patients in the memory care unit with dementia and their caregivers served as the study population.

**Intervention:** The NPI tool, in-person PowerPoint educational training was used to educate staff on the NPI tool, which assesses psychosis symptoms, and corresponding behavioral management interventions for patients that were positive for psychosis.

**Results:** The project determined that psychosis symptoms reduced following the implementation of behavioral management interventions. The total number of charts audited in 4 weeks was 20. Twenty patients were also assessed using the NPI tool. There was a total of 6 patients with positive NPI scores. The total number of patients that received an intervention was 6, which is 100% of the patients.

**Conclusion:** The project is relevant to memory care settings because it provides evidence-based approaches to managing psychosis and other behavioral problems. It also increases the scope of nursing practice by spearheading nurses' involvement in behavior management programs and patient and caregiver education.

**Keywords:** NPI tool, behavior management, psychosis, and evidence-based.

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

## **Introduction**

Behavioral symptoms, including sleep disturbances, wandering, and repetitive questions and statements, are a common clinical feature of dementia (Kales et al., 2015). Alzheimer's disease, a type of dementia, affects patients in many ways, such as taking longer to complete daily task and repeating questions. The National Library of Medicine estimates that 6.2 million Americans aged 65 years and older have Alzheimer's dementia today (National Library of Medicine, 2021). This number is projected to reach 13.8 million by the year 2060 (National Library of Medicine, 2021). In 2019, about 121,499 mortalities were directly associated with Alzheimer's disease (CDC, 2021). The National Library of Medicine (2021) further estimates that in 2020, the unpaid dementia caregiving was valued at \$256.7 billion. The cost implication coupled with the high number of mortalities and the future projections of anticipated number of Alzheimer's patients in the future are cause for concern.

Besides the mortality rate and cost implication, Alzheimer's dementia behaviors have devastating outcomes. If such behaviors go untreated, they can cause higher medical care utilization and associated expenses, greater caregiver distress, accelerated functional decline, worse quality of life, earlier placement in nursing homes, and more rapid disease progression (Li et al., 2016). Individuals that present with Alzheimer's are not tested for dementia in most primary care settings due to time constraints (Li et al., 2016). Even in instances where symptoms are clinically reported, such patients tend to receive fragmented, inappropriate, and ineffective care.

Given the associated challenges of behavioral symptoms, it is of paramount importance to incorporate a continuous, systematic screening for behavior symptoms in patients diagnosed with Alzheimer's disease and related dementias. Screening promotes early treatment intervention and, where possible, facilitates the prevention of disease progression as a major constituent of standard comprehensive care. When screenings are conducted successfully and behaviors are identified, clinicians should characterize them accordingly, and the underlying causes of such behaviors should be identified as well to develop a comprehensive and effective treatment plan. It is important to implement current evidence-based practices regarding behavior management for Alzheimer's patients experiencing psychosis.

### **Background**

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). They denote one of the most noteworthy clinical aspects of dementia. There are different terms used to refer to these behaviors. Some people may refer to them 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, and repetitive vocalizations (Chen et al., 2017). There are other identified psychiatric manifestations of the condition, including hallucinations, delusions, agitation, apathy, and depression (El Haj et al., 2020).

Studies indicate that behavioral symptoms often occur in syndromes or clusters, such as (executive dysfunction, sleep disturbances, apathy, aggression, agitation, psychosis, and depression (Lanctôt et al., 2017). With worsening disease conditions, patients continue to experience higher levels of susceptibility to their respective environments, and as such, it is possible for them to experience features of behavioral symptoms emanating from the convergence of numerous interacting variables, both external and internal. Some of the external features include intricate caregiver communications and an over-stimulating environment, while internal factors include fear, anger, pain, etc. (Lanctôt et al., 2017).

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 many times seen in early-stage Alzheimer's disease and in mild cognitive impairment, and this may worsen in terms of frequency as dementia progresses (Chen et al., 2017). Patients diagnosed with dementia also experience aggression, hallucinations, and delusional episodes more frequently in later stages of the disease development (Chen et al., 2017). Project shows that families of patients diagnosed with Alzheimer's disease report apathy, it is one of the most common behavioral symptoms across the different stages of dementia (Chen et al., 2017).

Apathy manifests as a sharp decline in motivation for about a month, and it is often accompanied by emotions and reduced goal-based cognitive activity and behavior (Nobis & Husain, 2018). Families also report their loved ones showing signs of agitation, which is another persistent and chronic challenge for individuals diagnosed with Alzheimer's and dementia (Nobis & Husain, 2018). Agitation denotes a situation where patients experience high emotional distress, vocally disruptive behaviors, disinhibition, irritability, aggressive behaviors, and

wandering. Agitation is also typified by excessive psychomotor activity (Koenig et al., 2016). It is common in most dementias at all levels of severity (Koenig et al., 2016).

### **Problem Statement**

The identified behaviors have serious consequences, worse than issues arising from the common problems attributable to cognitive decline, such as including memory loss and forgetfulness. Behavioral symptoms often contribute to psychiatric admissions, nursing home placement and are associated with the use of restraints (Chen et al., 2017). They also hasten disease progression and patient risk of partaking in dangerous activities including drugs and substance abuse.

Besides worsening the patients' 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 disease. Caregivers caring for patients exhibiting behavioral problems can be exposed to stress, particularly those without formal training on how to deal with the unique challenges presented by behavioral symptoms (Chen et al., 2017). To compound the problem, individuals experiencing behavioral issues have little insight with respect to their behaviors or consequences for the people attending to them. For continuity of care sustenance, it is important to address these problems early. Additionally, caregivers, including nurses, should be well-equipped to provide targeted care for Alzheimer's patients with behavioral issues to improve the patient's quality of life.

### **Project Question**

In a memory care setting, will implementing a behavior management program show improvement in Alzheimer's patients with a diagnosis of psychosis within a four-week period?



## Review of Literature

### Search Methods

For this review, articles were identified through a comprehensive search of relevant material (peer-reviewed articles) listed on Cochrane, AgeLine, PsycINFO, CINAHL, and PubMed from January 2016 onwards. Articles published within this period contained recent evidence regarding the subject. The search terms used were "behavior management program for Alzheimer's," "behavior management program for dementia," "interventions for individuals with Alzheimer's/dementia," "non-pharmacological interventions for dementia/Alzheimer's," "evidence-based practice in dementia/Alzheimer's management, "behavioral treatment for dementia/Alzheimer's disease," "psychosis treatment in dementia patients," and "behavioral interventions for psychosis patients with dementia." Inclusion criteria were peer-reviewed articles published from 2016-2021, patients with Alzheimer's or dementia living in community-dwelling place, and articles published in English in peer-reviewed journals. Articles that were excluded were those that focused on hospitalized patients and those not published in English.

Additionally, published guidelines for the management of dementia and Alzheimer's were included. These guidelines were derived from medical organizations' websites, as well as the listed databases. More specifically, there was focus mostly on dementia care that included treatment for specific symptoms of dementia, including psychological symptoms such as psychosis. Ultimately, a reference list was procured that was largely founded on the relevance of the topics that the review covered. Publications were from the Agency for Healthcare Project and Quality (AHRQ) for all evidence classes (I-IV) (Siegel et al., 2022). This included class I - a meta-analysis of random controlled trials; class II - randomized controlled trials; class III - observational studies with well-defined controls; and class IV - studies without any form of

control. These four classes were included because of the limited scope in terms of evidence for the treatment of patients diagnosed with Alzheimer's/dementia.

Information from this project will provide insights into whether behavioral interventions, which form part of non-pharmacological interventions for patients diagnosed with dementia, are effective, particularly for patients demonstrating signs of psychosis.

### **Review Synthesis**

Behavioral challenges for patients diagnosed with Alzheimer's/dementia often disrupt the lives of the victims and their caregivers. A study was conducted on potential interventions to address the psychological and behavioral symptoms of individuals with dementia (Lindeza et al., 2020). Many studies classify interventions into two broad categories: non-pharmacological and pharmacological interventions (Berg-Weger & Stewart, 2017; Lee et al., 2019). Both approaches are effective in their respective ways.

### ***Non-pharmacological Approaches***

Berg-Weger and Stewart (2017) state that non-pharmacological approaches originate from multiple disciplines, each trying to positively influence mood, cognition, and other psychological and behavioral symptoms of Alzheimer's. The scholars state that experts consider non-pharmacological approaches safer treatment options because they have fewer side effects (Berg-Weger & Stewart, 2017). In their review of available literature on non-pharmacologic strategies and interventions that can be applied in both healthcare facility and community settings, Berg-Weger and Stewart (2017) classified non-pharmacological approaches into four classes as hypothesized by Cammisuli et al. (2016). The four categories include holistic techniques, brief psychotherapy, cognitive approaches, and alternative methods (Berg-Weger & Stewart, 2017). The study by Cammisuli et al. (2016) investigated the available empirical

evidence and theoretical basis in improving autonomy and cognition for individuals diagnosed with Alzheimer's disease (AD). The study also aimed at reducing neuropsychiatric symptoms for AD-diagnosed individuals.

### **Holistic Techniques.**

**Cognitive Methods.** According to Berg-Weger and Stewart (2017), there are four main holistic interventions. These include cognitive methods, validation therapy, reminiscence therapy, and reality orientation. Cammisuli et al. (2016) listed spaced retrieval as the only cognitive approach to treating AD. The scholars claim that it was adopted as part of the cognitive approach for the association of names with objects or names with faces in AD (Cammisuli et al., 2016). The method, according to scholars, involves training patients to recall information over longer time spans. The scholars claim that evidence indicates that the approach is effective, specifically in increasing retention spans (Cammisuli et al., 2016). Han et al. (2017) investigated the effectiveness of the Ubiquitous Spaced Retrieval-based Memory Advancement and Rehabilitation Training (USMART) program on individuals with known cognitive challenges. The latter scholars also established that the technique is effective in improving information retrieval.

**Validation Therapy.** Validation therapy, according to Berg-Weger and Stewart (2017), entails processes of validating the emotions and personhood of individuals diagnosed with Alzheimer's. The theoretical framework supporting the intervention approach indicates that AD patients exhibit confusion as a mechanism for escaping reality, loneliness, boredom, and stress. Berg-Weger and Stewart (2017) noted that validation therapy is effective in reducing behavioral issues, promoting contentment, and alleviating stress. The projecters, nevertheless, stated that people with mild dementia might only benefit partially from the approach.

**Reality Orientation.** Berg-Weger and Stewart (2017) stated that reality orientation is aimed at reducing behavioral symptoms and confusion in individuals with AD. The approach orients patients to place and time. The scholars noted that reality orientation is directly correlated with behavioral and cognitive benefits in individuals diagnosed with AD (Berg-Weger & Stewart, 2017).

**Reminiscence Therapy.** The fourth method is reminiscence therapy. Berg-Weger and Stewart (2017) claim that the approach elicits recall of memories, activities, and events by using tangible aids such as movies, music, familiar items from the past, and photographs. Even though people with dementia may experience challenges remembering recent memories, scholars claim that the situation is different from older memories. Out of the four methods, reminiscence therapy is the least effective, with a moderate size impact on depressive symptoms and less than effective outcomes on cognitive function (Berg-Weger & Stewart, 2017). The most effective approach is the cognitive method (spaced retrieval).

**Brief Psychotherapy.**

Cammisuli et al. (2016) identified psychodynamic therapy as a prominent strategy under the brief psychotherapy category. Psychodynamic therapy features a couple of theories, including self-psychology, object relations theory, ego developmental psychology, ego analytic theory, and classical psychoanalytic theory (Cammisuli et al., 2016). According to the scholars, the approach concentrates on enhancing the patient's sense of identity through retrieval of past experiences that can evoke pleasurable feelings, thus communicating a sense of accomplishment (Cammisuli et al., 2016). In most cases, psychodynamic therapy is usually administered in group or individual sessions with the intention of reducing emotional distress, replacing inadequate coping strategies, and incorporating the disease process. Cammisuli et al. (2016) claim that

different kinds of psychodynamic psychotherapies have been used in the past, although the outcomes are inconclusive.

### **Alternative Methods.**

The two main alternative strategies identified by Cammisuli et al. (2016) include music therapy and bright light therapy. The scholars claim that music therapy is a newly fangled approach that is known to bring a lot of benefits to individuals diagnosed with AD (Cammisuli et al., 2016). Some of the benefits include improved expression and coordination, improved communication, and improved socialization. Cammisuli et al. (2016) claim that music therapy assists in memory recovery by promoting a sense of self-awareness and personal dignity while evoking autobiographical events. The scholars also claimed that music therapy stimulates communication skills, which tend to be impaired in individuals diagnosed with AD (Cammisuli et al., 2016). Impairment of communication skills in individuals with AD leads to isolation due to their inability to have normal conversations with people. In a review seeking to establish the effectiveness of music therapy for dementia patients, Moreno-Morales et al. (2020) obtained a total of eight studies, which provided evidence that music therapy is an effective intervention strategy for AD patients.

Besides music therapy, Cammisuli et al. (2016) also identified bright light therapy as a viable intervention for AD patients. The scholars claim that the strategy comprises a set of fluorescent bulbs put in a box where patients are required to sit near a lightbox without looking directly at the light but to stay with their eyes open (Cammisuli et al., 2016). The scholars confirm that the approach resulted in 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 (Cammisuli

et al., 2016). The scholars, nevertheless, claim that bright light therapy had minimal effects compared to other interventions (Cammisuli et al., 2016). Sekiguchi and colleagues conducted an experimental study seeking to establish the effectiveness of light therapy as an intervention for patients diagnosed with dementia. Using a sample of 17 participants, eight of which had Alzheimer's type dementia, the scholars established that bright light therapy improved sleep disturbance in four AD patients (Sekiguchi et al., 2017).

### ***Pharmacological Interventions***

Pharmacological interventions for patients diagnosed with Alzheimer's disease are usually prescribed for individuals as last resort intervention. This means that this intervention method is only adopted if non-pharmacological measures have been tried repeatedly without success. These methods are also recommended if the behavior of a patient poses a threat to themselves, as well as to other people (Ruthirakuhan et al., 2018). In addition, pharmacological interventions are adopted if a patient is in significant distress. Park et al. (2017) suggest that pharmacological interventions require the discretion of the physician as patients run the risk of polypharmacy (regular use of multiple medications). Bessey and Walaszek (2019) outlined two different classes of drugs used in pharmacological interventions in patients with Alzheimer's/dementia. These include antidepressants and antipsychotics.

**Antidepressants.** As indicated by the name, antidepressants are medications that are primarily used for treating depression and other depressive disorders. They are also used for managing chronic pain and treating anxiety disorders, as well as various addictions. Bessey and Walaszek (2019) claim that the efficacy of antidepressants, when applied as a treatment for AD, is unclear, with several studies showing that they are prominently used for the treatment of behavioral symptoms such as agitation and less for psychosis, anxiety, apathy, or depression in

dementia. Correia and Vale (2021) state that evidence of the efficacy of antidepressants in AD is contradictory, although certain types of drugs such as Mirtazapine are effective in treating depression.

Correia and Vale (2021) conducted a review of available literature seeking to establish the effectiveness of Mirtazapine as a distinct intervention approach for treating behavioral symptoms in AD. From the few selected articles included in the study, the scholars found that mirtazapine antagonizes “the adrenergic  $\alpha_2$ , and the serotonergic 5-HT<sub>2</sub> and 5-HT<sub>3</sub> receptors” thus making it an effective symptom suppressing agent (Correia & Vale, 2021). The scholars also listed other common antidepressant medication categories including tricyclic antidepressants such as amitriptyline, amoxapine, imipramine, and desipramine; monoamine oxidase inhibitors such as tranylcypromine and moclobemide, as well as selective serotonin reuptake inhibitors such as fluoxetine and paroxetine (Correia & Vale, 2021) believed to be effective in treating Alzheimer’s.

**Antipsychotics.** Antipsychotics have also attracted a lot of controversies, according to Correia and Vale (2021), for what they claim is the official FDA black box warning regarding their use, particularly in older adults. The scholars further state that individuals diagnosed with dementia taking antipsychotics are at high risk for mortality and major side effects (Correia & Vale, 2021). Correia and Vale (2021) claim that many studies conducted on their efficacy indicate that the effect is modest at best, particularly when used for treating aggression, agitation, and psychosis in individuals diagnosed with dementia. The scholars further contend that this category of drugs increases the risk of adverse outcomes (Correia & Vale, 2021). Nevertheless, the projectors claim that this category of drugs is commonly preferred by doctors in clinical settings and is believed to be effective (Correia & Vale, 2021).

## **The Proposed Intervention Program**

Depending on the nature (stage) of the condition and the population being treated, an appropriate behavior management program can be developed from these approaches taking into consideration patient-specific attributes such as age, stage of illness, behavioral symptoms, etc. A combination of the different aspects of the identified approaches could be made to find the right balance for patients exhibiting psychosis in a memory care setting.

## **Literature Review Summary**

There are many different intervention approaches that can be used to develop a specific behavior management program for Alzheimer's patients experiencing psychosis in a memory care setting. The reviewed literature has revealed different approaches including both non-pharmacological and pharmacological strategies. The main non-pharmacological strategies holistic techniques, brief psychotherapy, cognitive approaches, and alternative methods besides the three listed approaches. Holistic techniques include cognitive methods, validation therapy, reality orientation, and reminiscence therapy. Alternative approaches include music therapy and bright light therapy. Pharmacological interventions include multiple classes of drugs including antidepressants and antipsychotics. Implementing a behavior management program for Alzheimer's patients experiencing psychosis continues to be a necessity in the memory care setting.

## **Project Aim**

The project aims to

## **Project Objectives**

1. 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 (Appendix B).

2. 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.
3. To evaluate the implementation of the behavior management program.

### **Implementation Framework**

#### **Historical Development of the Model**

The implementation framework that has been selected for this project is the IOWA model of evidence-based practice (EBP) (Appendix A). The model was developed in the 1990s at the University of Iowa Hospital and clinics (Iowa Model Collaborative et al., 2017). The model aimed to guide in improving patient care through the implementation of evidence-based interventions (Iowa Model Collaborative et al., 2017). Since 2001, physicians, educators, administrators, and projectors from all 50 states and 130 countries have submitted over 3,900 requests for authorization to utilize the Iowa Model (Iowa Model Collaborative et al., 2017). The IOWA model is precipitated by triggers, triggers include problems that are observed in an institution (Iowa Model Collaborative et al., 2017). In this case, the triggers include psychosis among the patients which has a negative impact on the quality of life of the adults.

Since the last revision, significant changes in health care have occurred, including an explosion of synthesized evidence, national and international initiatives promoting EBP adoption, improved interprofessional collaboration, widespread use of electronic data, the emergence of implementation science, pay for performance, and improved patient engagement (Iowa Model Collaborative et al., 2017). Intended users are the point of care clinicians who ask

questions and seek a systematic, EBP approach to promote excellence in health care (Iowa Model Collaborative et al., 2017).

### **Application to the DNP Project**

The model has 8 steps of implementation.

**Step 1:** The first step is the identification of the problem. In this case, the noted problem was high rates of psychosis among patients admitted to the facility. Data from clinical records were used to determine the prevalence of psychosis among the patients in the facility. The data revealed a high rate of psychosis among the patients and thus the need to utilize evidenced-based intervention to manage the problem.

**Step 2:** The next step is determining if the project is a priority. Based on the data and the high rates of disease co-occurrence, it was established that management of psychosis is important in improving the quality of life of adults.

**Step 3:** Following this, a team will be selected who will be involved in evaluating the program to determine which interventions are appropriate to implement among the population. The team includes nurses, nursing assistants, nutritionists, and the activity director.

**Step 4:** The fourth step was to gather data that will be used to guide the project and formulate a PICOT question (Iowa Model Collaborative et al., 2017). The evidence to support the intervention will be obtained from recently published project articles.

**Step 5:** The fifth step was critiquing the evidence to ensure that it is reliable and can be implemented in the project. Each of the selected articles were critiqued to ensure that the evidence is reliable and valid before being incorporated into the project.

**Step 6:** The sixth step includes a determination of whether the data available is sufficient to develop an evidence-based approach (Iowa Model Collaborative et al., 2017).

**Step 7:** Then an evidenced-based intervention, in this case, education of nurses and other health care workers within the facility on the utilization of behavior management programs for the management of psychosis among the patients. The project will also include the implementation of the behavior management program and evaluation of the program to assess its outcomes.

**Step 8:** The final step will be to evaluate the effectiveness of the educational intervention as well as the behavior management program in improving patient outcomes.

### **Population of Interest**

The direct population of interest will include nurses who will be part of the intervention. This includes registered nurses (RNs) and licensed practical nurses (LPNs) who work with Alzheimer's patients on the memory care unit. Nursing assistants and the activities director will be included as well. Nurses working outside the memory care unit will be excluded from the project. It is expected that all of the RNs and LPNs working on the memory care unit will agree to be part of the study. The reason for selecting nurses is because the intervention is nurse-based and will include the implementation of the behavioral non-pharmacological intervention.

The indirect population of interest will be patients who have been diagnosed with Alzheimer's disease and psychosis. The patients will be selected from those receiving care from the memory care unit staff. The goal of the project is to reduce psychosis in Alzheimer's patients.

### **Setting**

The project will be implemented in a selected memory care facility in Virginia that offers care for Alzheimer's/dementia patients on a 25-bed unit. The selected facility admits geriatric patients who have a diagnosis of Alzheimer's/dementia. The facility that has been selected uses paper charting and has at least 20 adults with a diagnosis of Alzheimer's.

### **Stakeholders**

The key stakeholders in this project will include nurses, patients living within the selected facility, family of the patients in the facility and the administrator of the facility. The patients and their families are the recipients of the intervention, primarily, the patients will be the direct recipient of the selected interventions. Their families will be kept informed of the intervention and will be included in the consenting process of the intervention especially in cases where the patient suffers from severe cognitive decline and is incapable of making decisions about their health. The RNs and LPNs will work with the psychiatric provider to implement the intervention. Finally, the role of the administrator is to support the project financially and provide the required resources for implementation. The administrator acknowledges permission to conduct this project and no affiliation agreement is needed.

### **Interventions**

The proposed intervention is aimed at educating the project team on the assessment and management of psychosis. The project team in the facility will be included in an educational intervention that will be done over two days. During the two days, the project team will be educated on the methods that will be used to assess psychosis in the patients at the facility. Additionally, the project team will also be educated on the various pharmacological and non-pharmacological interventions that are effective in the management and reduction of psychosis symptoms among patients diagnosed with Alzheimer's. Finally, they will be educated on the assessment of the effectiveness of the interventions. Specifically, they will be taught on the utilization of the Neuropsychiatric Inventory (NPI) for the assessment of psychosis symptoms in the patients within the facility. An in-person PowerPoint will be utilized for education. In addition to implementing the nursing intervention, the nurses will be working with the activity

coordinator who will utilize exercise-based treatment, music therapy, and art therapy for the management of psychosis (Hu et al., 2021). Different aspects of the identified approaches will be utilized to improve patient outcomes and quality of life. It is expected that the knowledge and perception of the project team on assessment and management of psychosis in Alzheimer's will improve (Davis et al., 2018). The non-pharmacological intervention that will be used for the management of psychosis in the patients will be behavioral management therapy.

### **Tools**

The tools that will be used in the project will be the Neuropsychiatric Inventory (NPI), the psychosis chart audit checklist tool, and the educational Power Point. These tools will be used to evaluate the knowledge and perception of the project team on the assessment and management of psychosis in patients diagnosed with Alzheimer's disease living in memory care facilities. The NPI will be used for the assessment of psychosis among the patients, it is expected that following the interventions, there will be a reduction of psychosis symptoms among the patients included in the intervention. The NPI is an existing tool that has already been validated.

#### **Neuropsychiatric Inventory (NPI)**

The NPI is a tool that is used to assess the behavioral outcomes of both pharmacological and non-pharmacological interventions. It is especially useful for the assessment of neurodegenerative disorders and has been used for over 25 years. The tool consists of 12 items and its validity and reliability have been well proven over time. The tool has also been applied in over 350 clinical trials and thus it is proven to effectively capture the behavioral symptoms associated with Alzheimer's (Cummings, 2020). The tool was developed by Cummings (2020) and thus permission to use the tool will be obtained from Cummings (2020) who is the originator of the tool (npiTEST, 2022).

### **Chart Audit Tool**

The chart audit tool will be used for data collection for patients experiencing psychosis (Appendix C). A chart audit will be done on a weekly basis for 4 weeks. Five patient charts will be audited every week for a total of 20 patients. The chart audit tool consists of five yes or no questions. The chart audits will be performed to verify if staff is implementing the NPI tool to assess for psychosis. The chart audit tool will also reveal if there is an improvement in the patient scores once the intervention was carried out.

### **Educational Presentation**

The process for developing the educational presentation will be presented on a PowerPoint presentation (Appendix D). The key points that will be addressed are symptoms of psychosis, how to utilize the NPI inventory tool, and behavioral interventions used for Alzheimer's patients experiencing psychosis. This presentation will be interactive with the learners. Will include questions throughout the educational presentation to test the learner's knowledge and understanding of the content.

### **Steps Toward Implementation**

The first step toward implementing this behavioral management program will entail creating organizational awareness. According to Abylova & Salykova, (2019), the project leader will identify the key stakeholders who will be initiating the behavior management plan. The primary stakeholders include the staff of the memory care unit. Nurses are members of the project team to be educated while patients and their families are recipients of the intervention who should be made aware of the project's commencement beforehand. The administrators whose responsibility is to provide financial and resource support for project implementation will be needed to approve the policy, implementation plan, and commencement of the

implementation process (Sicotte & Delerue, 2021).

The second stage will entail obtaining the necessary documents and materials. Given the program to be implemented is an educational intervention, the necessary training materials need to be available as early as possible (Abylova & Salykova, 2019). Thus, at this stage, educational materials, as well as communication materials will be developed. The organizational approval for these documents will also be obtained if necessary. A surplus of educational materials will be maintained as they may be needed past the date of implementation.

The next most important step in implementation planning is to design a communication plan. A letter (of approval) from the facility's management will be shared with members of the project team. These will be sent via email. Constant reminders about the kick-off date will also be periodically sent to the participating staff leading up to the implementation date.

Communication is an important element in project implementation, but more specifically in implementation planning. Indeed, such a plan enables the project to advance efficiently and on time. The communication plan also establishes clear guidelines on information sharing (Abylova & Salykova, 2019). It establishes who is to communicate and determines who will be the recipient of the transmitted information (Sicotte & Delerue, 2021; Abylova & Salykova, 2019). In a nutshell, this project's communication plan will keep the behavioral management program on track by establishing stakeholder expectations on when updates will be received and augmenting the stakeholders' visibility in the project. The major activities in the communication planning will be done on a continuous basis.

The next phase in implementation planning will involve developing a training and educational plan. As mentioned earlier, the intervention recommended for implementation involves educating the project team on the methods they can employ to assess and manage

psychosis in Alzheimer's patients living in a memory care facility. The nurses are to be educated on different but effective pharmacological and non-pharmacological interventions to be used in managing and diminishing psychotic symptoms among the targeted patients.

Lastly, follow-up and evaluation will be planned. The project lead will be assigned to pick issues or questions during implementation and the period following implementation. Informal surveys will be performed to ascertain the knowledge of the participating nurses. Informal surveys can be done using current feedback mechanisms such as management rounding (Hickman et al., 2020). Key areas will then be checked at least three months post-implementation to gauge whether the changes have been successfully integrated. This activity will be completed by the nurses on the memory care unit. The progress will then be communicated to the leadership. The purpose of follow-up and evaluation is to strengthen the credibility of the project and the accountability of its clients (Hickman et al., 2020). It gives project managers a sense of ownership and an opportunity to learn to improve.

### **Implementation Plan**

The intervention to be implemented is a behavioral management program for Alzheimer's patients with psychosis in a memory care facility situated in Virginia. The purpose of the intervention proposed for implementation is to educate the project team on the evaluation and management of psychosis in patients suffering from Alzheimer's disease. The team taking part in the project will be involved in an educational and programmatic intervention that will last for 5 weeks. Planning for implementation will follow an elaborate process with clear activities and timelines.

**Week 1:** The nurses will be educated on the utilization of the NPI tool and behavioral management program. This will be done on a PowerPoint presentation in person. The



educational intervention will improve the knowledge of nurses on the utilization of behavior management interventions for the management of psychosis in patients diagnosed with Alzheimer's disease as evidenced by an improved NPI score. **Weeks 2-5:** This is when the project will be implemented. During this time, the nurses will be expected to use the assessment tool and implement behavioral interventions.

### **Study of the Intervention, Data Collection**

The effectiveness of the intervention will be assessed in two ways. The first will be through the utilization of the NPI tool to assess the psychotic symptoms of the patients. It is expected that there will be a reduction in symptoms following the implementation of the behavioral management interventions (Cummings, 2020). An already validated tool, the NPI is an informant questionnaire-based interview whose goal is to assess the participant's neuropsychiatric symptoms over a given period. The data will be collected on the NPI questionnaire for each patient.

Utilization of the NPI tool and behavior interventions will be assessed via chart review. The procedure for data collection will include auditing five patient charts per week over a 4-week period. The data will then be documented on the chart audit tool sheet. It will be expected that the patient will have an improvement in psychotic symptoms according to the behavior intervention that was executed. Patient room numbers will be used to maintain the confidentiality of the patients. Any patient information will be destroyed after the completion of the project. Data will be stored on a password-protected computer for security.

### **Ethics/Human Subject Protection**

The project does not require an IRB process. There are no foreseen harms associated with the project. The project will be beneficial to the patients because of the behavioral interventions

that will be implemented for the management of psychosis. The goal will be to decrease the symptoms of psychosis in Alzheimer's patients. The project will be beneficial to the staff because it will improve patient outcomes, and the patients will have reduced symptoms of psychosis which will make it easier for the staff to care for the patients.

For recruitment, a letter will be sent to the emails of the staff working in the facility. The letter will request the staff to be a part of the project and those who agree will be recruited for the educational intervention. For compensation, the staff will receive paid education time, as well as a certificate of appreciation.

### **Measures/Plan for Analysis**

To evaluate the outcomes of the interventions, descriptive statistics analysis will be used to summarize the chart review data, NPI tool data, and the number of staff that is educated. The descriptive statistics will include the frequency of how many patients were assessed with the NPI and chart audit tool. The percentages will include the collected data from the tools, as well as the percentage of staff that was in attendance for the educational sessions. A statistician will not be needed for this project.

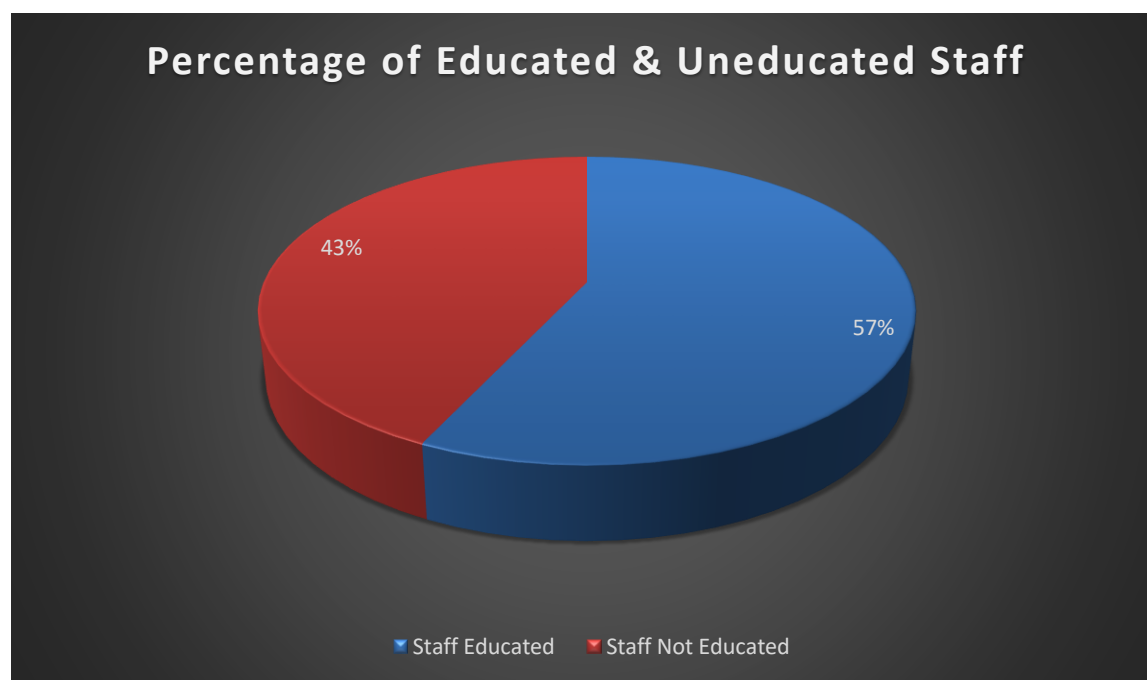
The process for analyzing the chart review and NPI tool will reveal how many staff members are using the tools and how many patients the tools were utilized for. The educational session will be hosted by the project lead. Two educational sessions will be held, one for the day shift staff and the other for the night shift staff. A head count for attendance at the educational sessions will be taken to measure the number of staff that will receive the education. Utilizing excel, a graph will be generated to present the collected data.

## Analysis of Results

Data was collected over a five-week period for this DNP project. Descriptive statistics were used to summarize the data that was collected, which were counts and percentages. The percentage of staff educated, as shown in Figure 1, was 57%. The staff was educated on symptoms of psychosis, how to utilize the NPI inventory tool, and behavioral interventions used for Alzheimer's patients experiencing psychosis.

**Figure 1**

*Educated & Uneducated Staff*



The number of patients with positive NPI scores over the five weeks was 6, as shown in Table 1. During week 2, the project lead audited five patient charts, and 1 out of 5 patients scored positive on the NPI tool. One intervention was implemented for that patient. The staff was instructed to continue utilizing the NPI tool and interventions for the upcoming week.

During week 3, no patients were found to be positive when the NPI tool was used. As a result, no interventions were implemented for patients with audited charts. During week 4, two patients were found to be positive when staff utilized the NPI tool. There were documented interventions utilized for both patients. Finally, during week 5, three patients were found to be positive when staff utilized the NPI tool. Documented interventions were utilized for all three patients (Ismail et al., 2022).

The total number of charts audited in 4 weeks was 20. Twenty patients were also assessed using the NPI tool. There was a total of 6 patients with positive NPI scores. The total number of patients that received an intervention was 6, which is 100% of the patients.

**Table 1**

*Chart Audits for Compliance*

Week	# of Charts Audited	# Patients Assessed With NPI Tool	# Patients with Positive NPI Scores	# Patients 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 (100%)	6 (30%)	6 (100%)

**Summary**

The education was in person, utilizing a PowerPoint presentation, which was a strength of the project. All staff and stakeholders' questions and concerns were addressed during each educational session. During week 2, the staff reported to the project lead that they were

comfortable using the tools and interventions, which is another strength. The project also had a weakness. During week 3 of the project, one limitation was discovered. No patients were found to be positive when the NPI tool was used. As a result, no interventions were utilized on the audited charts.

### **Interpretation**

The project appears to be having a positive impact on people and systems. The intervention appears to be associated with positive outcomes, and there have been no observed negative trade-offs or costs. The staff is comfortable using the tool and interventions and is seeing positive results regarding the number of patients being identified and receiving interventions (Hickman, 2020).

The primary objective of the DNP project was 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 NPI score. This objective was met on multiple occasions. Once the nursing staff utilized the NPI tool and found some patients to be positive for psychosis, interventions were immediately implemented. After implementing the intervention, nursing found that some of the symptoms of psychosis were reduced. This was verified by utilizing the NPI tool again to reassess the symptoms of psychosis.

The second objective was 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. This object was not met. 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. Once the interventions were implemented, the

patients showed a reduction in psychotic symptoms. Some of the interventions that were documented included, music therapy, reality orientation, bright light therapy and pharmacological interventions. A study showed that the non-pharmacological and pharmacological interventions resulted in 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 (Cammisuli et al., 2016).

The final objective was to evaluate the implementation of the behavior management program. Since implementation of the behavior management program, it was found most patients' psychotic symptoms improved with the use of non-pharmacological and pharmacological interventions. The results turned out well and it showed that the NPI and interventions had a good outcome in recognizing psychosis as well as reducing psychosis by utilizing the interventions. According to the literature, it was found that among the pharmacologic interventions, modest efficacy was reported with aripiprazole, citalopram, trazodone, methylphenidate, and scheduled analgesics (McClam et al., 2015). 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, which strengthens the application of project-based interventions used to improve patient outcomes (Edwards et al., 2018).

### **Limitations**

During week 3 of the project, one limitation was discovered. No patients were found to be positive when the Neuropsychiatric Inventory tool (NPI) was used. As a result, no interventions were utilized on the audited charts. Even though this is a limitation, having to not use any interventions showed that the patients did not present with any signs of psychosis, which means they did well during that week.

### **Bias and Design**

Bias might have contributed to the lack of positive patients because the NPI tool focuses on predictive values rather than the actual values generated from the project participants (Lai, 2014). Once the nursing staff utilized the NPI tool and found some patients to be positive for psychosis, interventions were immediately implemented. After implementing the intervention, nursing found that some of the symptoms of psychosis were reduced. This was verified by utilizing the NPI tool again to reassess the symptoms of psychosis.

### **Data Collection**

Failure to collect post-intervention NPI assessments regularly was also a significant limitation of the project because it reduced the ability of the nursing staff to explain the reduction in psychosis symptoms once the NPI tool was used as an intervention measure. This limitation was attributed to the data collection measures because they did not provide mechanisms for gathering post-intervention data during the project.

### **Data Analysis**

Analysis using parametric tests associated with the NPI may not be appropriate when dealing with human subjects because these parametric tests undermine the accuracy of results

(Lai, 2014). The project had a small data set. As a result, the findings are not generalizable or able to be evaluated for statistical significance.

### **Efforts made to minimize and adjust for limitations**

Follow-up and evaluation were conducted to address the project's limitations. Follow-up and evaluation focused on creating a consistent approach for evaluating the results to ensure that the NPI tools' findings were reliable and valid. To adjust for limitations, post-intervention data should have been collected by nursing.

### **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.

### **Sustainability**

In current care settings, managing psychosis behaviors, including repetitive vocalizations, wandering, and disturbances are distressing and challenging aspects of care delivery. However, 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 of the project so there are plans to keep the protocol in place. Since the project was successful, there are plans to continue the behavior management program. There are no barriers to keeping this protocol long-



term. 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.

### **Implications and Next Steps**

The project also presents significant implications for nursing practice and policy formulation. 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. 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.

## **Conclusion**

### **Summary**

Alzheimer's disease undermines the ability of individuals to accomplish tasks and affects their health outcomes. The project examined whether implementing a behavior management program in a memory care setting demonstrated improvement in Alzheimer's patients with a diagnosis of psychosis. The total number of charts audited in 4 weeks was 20. Twenty patients were also assessed using the NPI tool. There was a total of 6 patients with positive NPI scores. The total number of patients that received an intervention was 6, which is 100% of the patients. The project is relevant to memory care settings because it provides evidence-based approaches to managing psychosis and other behavioral problems. It also increases the scope of nursing

practice by spearheading nurses' involvement in behavior management programs and patient and caregiver education.

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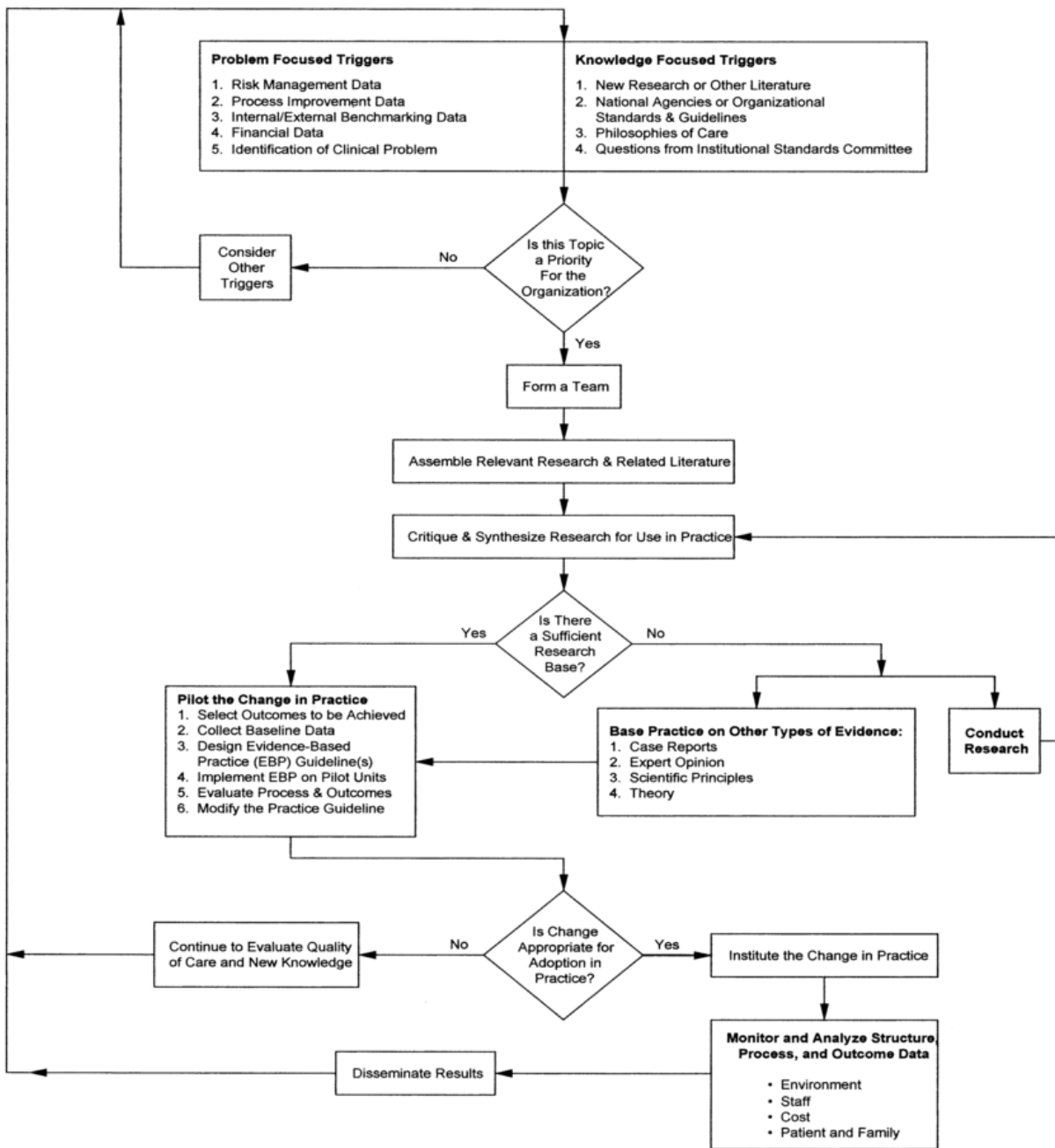
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## Appendix A: Iowa Model of Evidenced-Based Practice

The Iowa Model of Evidence-Based Practice to Promote Quality Care



◊ = a decision point



## Appendix B: Neuropsychiatric Inventory Questionnaire



### NEUROPSYCHIATRIC INVENTORY QUESTIONNAIRE

 ID NUMBER:        

 FORM CODE:  N  P  I

 DATE: 04/01/2016  
Version 1.0

#### ADMINISTRATIVE INFORMATION

 0a. Completion Date:   /   /      
Month      Day      Year

 0b. Staff ID:   

**Instructions:** This form is administered to the informant. {S} refers to subject, please state subject's name where {S} is found below. The following questions are based upon changes in neuropsychiatric symptoms over the previous month.

**Script:** "Now I will ask you questions about your husband/ wife/ brother/ sister/ parent/ friend's behavior and personality."

	Yes	No	<u>Severity</u>		
			Mild	Moderate	Severe
1. DELUSIONS: Does {S} believe that others are stealing from him or her, or planning to harm him or her in some way?	1a. <input type="checkbox"/> <sub>Y</sub>	<input type="checkbox"/> <sub>N</sub>	1b. <input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
2. HALLUCINATIONS: Does {S} act as if he or she hears voices? Does he or she talk to people who are not there?	2a. <input type="checkbox"/> <sub>Y</sub>	<input type="checkbox"/> <sub>N</sub>	2b. <input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
3. AGITATION OR AGGRESSION: Is {S} stubborn and resistive to help from others?	3a. <input type="checkbox"/> <sub>Y</sub>	<input type="checkbox"/> <sub>N</sub>	3b. <input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
4. DEPRESSION OR DYSPHORIA: Does {S} act as if he or she is sad or in low spirits? Does he or she cry?	4a. <input type="checkbox"/> <sub>Y</sub>	<input type="checkbox"/> <sub>N</sub>	4b. <input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
5. ANXIETY: Does {S} become upset when separated from you? Does he or she have any other signs of nervousness, such as shortness of breath, sighing, being unable to relax, or feeling excessively tense?	5a. <input type="checkbox"/> <sub>Y</sub>	<input type="checkbox"/> <sub>N</sub>	5b. <input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>

	Yes	No	<u>Severity</u>		
			Mild	Moderate	Severe
6. ELATION OR EUPHORIA Does {S} appear to feel too good or act excessively happy?	6a. <input type="checkbox"/> <sub>Y</sub>	<input type="checkbox"/> <sub>N</sub>	6b. <input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
7. APATHY OR INDIFFERENCE: Does {S} seem less interested in his or her usual activities and plans of others?	7a. <input type="checkbox"/> <sub>Y</sub>	<input type="checkbox"/> <sub>N</sub>	7b. <input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
8. DISINHIBITION: Does {S} seem to act impulsively? For example, does the patient talk to strangers as if he or she know them, or does the patient say things that may hurt people's feelings?	8a. <input type="checkbox"/> <sub>Y</sub>	<input type="checkbox"/> <sub>N</sub>	8b. <input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
9. IRRITABILITY OR LABILITY: Is {S} impatient or cranky? Does he or she have difficulty coping with delays or waiting for planned activities?	9a. <input type="checkbox"/> <sub>Y</sub>	<input type="checkbox"/> <sub>N</sub>	9b. <input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
10. MOTOR DISTURBANCE: Does {S} engage in repetitive activities, such as pacing around the house, handling buttons, wrapping string, or doing other things repeatedly?	10a. <input type="checkbox"/> <sub>Y</sub>	<input type="checkbox"/> <sub>N</sub>	10b. <input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
11. NIGHTTIME BEHAVIORS: Does {S} awaken you during the night, rise too early in the morning or take excessive naps during the day?	11a. <input type="checkbox"/> <sub>Y</sub>	<input type="checkbox"/> <sub>N</sub>	11b. <input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
12. APPETITE AND EATING: Has {S} lost or gained weight, or had a change in the food he or she likes?	12a. <input type="checkbox"/> <sub>Y</sub>	<input type="checkbox"/> <sub>N</sub>	12b. <input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>

### Appendix C: Chart Audit Tool

	Room #	Room #	Room #	Room #	Room #
Today's Date					
Documented psychosis? (yes or no)					
Was the Neuropsychiatric Inventory (NPI) tool used? (yes or no)					
Was there a score documented for the NPI tool? (yes or no)					
Were any behavior interventions implemented? (yes or no)					
Did the NPI score improve after the behavior interventions were implemented? (yes or no)					

## Appendix D: PowerPoint Presentation

# Behavior Management Program

Shereka Jenkins, DNP Student  
Touro University Nevada



## Purpose

To implement a proper program that can assist with behavior management for patients who have Alzheimer's disease and experiencing psychosis in a memory care setting.

## Learning Objectives

### Differentiate

Differentiate between Alzheimer's disease and psychosis.

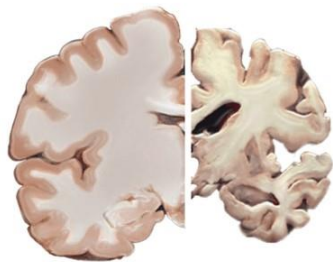
### Define

Define what the Neuropsychiatric Inventory (NPI) tool is and discuss how to utilize the tool.

### Discuss

Discuss how the project lead will utilize the Chart Audit Tool.

Healthy Brain      Severe Alzheimer's



## What is Alzheimer's Disease?

- The most common form of dementia.
- A brain disorder that slowly destroys memory and thinking skills and eventually, the ability to carry out simple tasks.
- There is not a cure for Alzheimer's disease.

## Symptoms of Alzheimer's Disease

---

Disorientation, mood, and behavior changes; deepening confusion about events, time, and place.

Unfounded suspicions about family, friends, and professional caregivers.

More serious memory loss and behavior changes include difficulty speaking, swallowing, and walking.

## Behaviors in Alzheimer's Disease

---

Memory loss  
and  
Confusion

Aggression  
and Anger

Anxiety and  
Agitation

Depression

Repetition

Wandering

Sleep Issues  
&  
Sundowning



## What is Psychosis?

---

- Used to describe conditions that affect the mind, where there has been some loss of contact with reality.
- During a period of psychosis, a person's thoughts and perceptions are disturbed and the individual may have difficulty understanding what is real and what is not.

## Symptoms of Psychosis

---



- Delusions (false beliefs)
- Hallucinations (seeing or hearing things that others do not see or here)
- Agitation or Aggression
- Depression or Dysphoria
- Irritability
- Motor Disturbance





			Severity		
	Yes	No	Mild	Moderate	Severe
6. ELATION OR EUPHORIA Does (S) appear to feel too good or act excessively happy?	6a. <input type="checkbox"/>	<input type="checkbox"/>	6b. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. APATHY OR INDIFFERENCE: Does (S) seem less interested in his or her usual activities and plans of others?	7a. <input type="checkbox"/>	<input type="checkbox"/>	7b. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. DISINHIBITION: Does (S) seem to act impulsively? For example, does the patient talk to strangers as if he or she knew them, or does the patient say things that may hurt people's feelings?	8a. <input type="checkbox"/>	<input type="checkbox"/>	8b. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. IRRITABILITY OR LABILITY: Is (S) impatient or cranky? Does he or she have difficulty coping with delays or waiting for planned activities?	9a. <input type="checkbox"/>	<input type="checkbox"/>	9b. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. MOTOR DISTURBANCE: Does (S) engage in repetitive activities, such as pacing around the house, handling buttons, wrapping string, or doing other things repeatedly?	10a. <input type="checkbox"/>	<input type="checkbox"/>	10b. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. NIGHTTIME BEHAVIORS: Does (S) awaken you during the night, rise too early in the morning or take excessive naps during the day?	11a. <input type="checkbox"/>	<input type="checkbox"/>	11b. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. APPETITE AND EATING: Has (S) lost or gained weight, or had a change in the food he or she likes?	12a. <input type="checkbox"/>	<input type="checkbox"/>	12b. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## NPI Tool

## Utilizing the NPI Tool

- Each Item 1-12. Choose "Yes" only if the symptom(s) has been present in the last month. Otherwise, choose "No". For each item marked "Yes" rate the SEVERITY of the symptom (how it affects the participant): 1 = Mild (noticeable, but not a significant change) 2 = Moderate (significant, but not a dramatic change) 3 = Severe (very marked or prominent; a dramatic change)

## Interventions

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If the NPI tool shows that the patient is positive for psychosis, the nurses are to utilize the interventions.

Any interventions utilized should be documented in the patient's chart.

## Non-Pharmacological Interventions

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- Originate from multiple disciplines, each trying to positively influence mood, cognition, and other psychological and behavioral symptoms of Alzheimer's.
- Safer treatment options because they have fewer side effects.

## Validation Therapy

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- Entails processes of validating the emotions and personhood of individuals diagnosed with Alzheimer's.
- Validation therapy is effective in reducing behavioral issues, promoting contentment, and alleviating stress.
- Example: Rather than trying to bring the person with Alzheimer's back to our reality, it is more positive to enter their reality.

## Reality Orientation

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- Aimed at reducing behavioral symptoms and confusion in individuals with AD. The approach orients patients to place and time.
- Reality orientation is directly correlated with behavioral and cognitive benefits in individuals diagnosed with AD.

## Reminiscence Therapy

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- This approach elicits recall of memories, activities, and events by using tangible aids such as movies, music, familiar items from the past, and photographs.

## Music Therapy

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- Benefits include improved expression and coordination, improved communication, and improved socialization.
- Music therapy stimulates communication skills, which tend to be impaired in individuals diagnosed with AD.
- Studies show that music therapy is an effective intervention strategy for AD patients.

## Light Therapy

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- The strategy comprises a set of fluorescent bulbs put in a box where patients are required to sit near a lightbox without looking directly at the light but to stay with their eyes open.
- Using a sample of 17 participants, eight of which had Alzheimer's type dementia, it was established that bright light therapy improved sleep disturbance in four AD patients.

## Pharmacological Interventions

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- Usually prescribed for individuals as a last resort intervention.
- This intervention method is only adopted if non -pharmacological measures have been tried repeatedly without success.
- Recommended if the behavior of a patient poses a threat to themselves, as well as to other people.

## Antidepressants

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- Prescription will be required.
- Can be used for the treatment of behavioral symptoms such as agitation and less for psychosis, anxiety, apathy, or depression in dementia.

## Antipsychotics

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- Prescription will be required.
- Studies conducted on their efficacy indicate that the effect is modest at best, particularly when used for treating aggression, agitation, and psychosis in individuals diagnosed with dementia.
- This category of drugs is commonly preferred by providers in clinical settings and is believed to be effective.

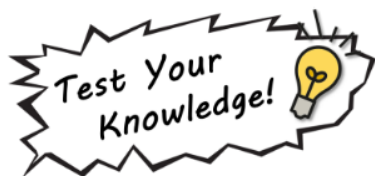
## Chart Audit Tool

Used for data collection for patients experiencing psychosis.

The chart audit tool consists of five yes or no questions.

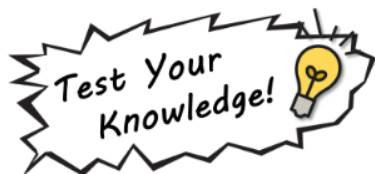
The chart audits will be performed to verify if staff is implementing the NPI tool to assess for psychosis.

The chart audit tool will also reveal if there is an improvement in the patient scores once the intervention was carried out.



## Knowledge Check

- What is the most common form of Alzheimer's disease?
- T/F- There is a cure for Alzheimer's disease?
- List 5 symptoms of Alzheimer's disease.
- List 3 symptoms of psychosis.
- What is the NPI tool used for?



## Knowledge Check

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- How many items does the NPI tool consist of?
- T/F- Nurses should document any intervention used when the NPI tool shows that the patient is positive for psychosis.
- List 3 interventions that can be used for a patient who's experiencing psychosis.



## Knowledge Check

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- What is the chart audit tool used for?
- The chart audit tool consists of how many questions?
- Which staff member will utilize the chart audit tool?



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