Fall 12-16-2016

Nonpharmacological Approaches in Dementia Care

Gay Lynn Warren
University of San Francisco, lynn16776@bellsouth.net

Nonpharmacological Approaches in Dementia Care

Gay Lynn Warren

University of San Francisco

NURS653: Internship: Clinical Nurse Leader

Fall 2016

Professor Francine Serafin-Dickson, MBA, BSN, CNL

Nonpharmacological Approaches in Dementia Care

As the average life expectancy increases, so does the incidence of dementia. According to the World Health Organization (2015), currently, approximately 47.5 million people are afflicted with dementia, and it is estimated that this number will more than triple by 2050. Dementia is a syndrome where deterioration of cognitive function becomes evident through impaired memory, personality changes, impaired judgement and thinking, and faulty communication (World Health Organization, 2015). Unfortunately, challenging behaviors such as depression, anxiety, wandering, disruptive vocalization, aggression, and resistance to care are also, often times, displayed by patients afflicted with dementia. Patients exhibiting challenging dementia-related behaviors are often met with resistance or frustration by the staff members caring for them. The Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) (2014) has established that behavior management, regarding dementia patients, should include "…the use of nonpharmacological interventions as an alternative to antipsychotic medication use" in order for dementia patients to operate at their highest level of functioning for as long as possible (p. 8).

Clinical Leadership Theme

The aim of this project is to improve dementia care on the 6A acute care unit by implementing nonpharmacological approaches as a means to manage challenging dementia-related behaviors.

This improvement project focuses on the Clinical Nurse Leader (CNL) curriculum theme of Clinical Outcomes Management (American Association of Colleges of Nursing [AACN], 2007). The CNL roles that most closely correspond with this project are outcomes manager and client advocate (AACN, 2013). It is a priority of this project to educate staff members about the

benefits of nonpharmacological approaches in the management of challenging dementia-related behaviors in an effort to improve patient outcomes and to decrease the use of psychotropic medications.

Statement of the Problem

The 6A acute care unit has been seeing a higher number of patients that are afflicted with dementia. Often times, these patients display challenging dementia-related behaviors. It is commonplace for these patients to be medicated with a psychotropic medication in order to halt the challenging behavior. The patient-centered care model (U. S. Department of Veterans Affairs, 2016), along with cultural transformation is becoming more prominent in the acute care setting, thus, it seems appropriate to implement approaches that are patient-centered in order to alleviate the challenging behavior. The implementation of nonpharmacological approaches also coincides with the memory care standards as established by the JCAHO (2014). It is worthy to mention that, according to Greenblatt and Greenblatt (2016), hip fracture, stroke, myocardial infarction, ventricular arrhythmias, and death can be attributed to psychotropic drug use in the dementia patient. Steinberg and Lyketsos (2012) affirm that adverse events such as stroke or death are of utmost concern.

Project Overview

As more patients afflicted with dementia are admitted to hospitals, staff members will be faced with greater incidences of challenging dementia-related behaviors and managing those behaviors. While it is commonplace for antipsychotic medications to be used in these situations, it is crucial to educate staff members about the dangerous effects these medications can have on dementia patients. It will be just as crucial to educate them about nonpharmacological approaches, and their benefits, in the management of challenging dementia-related behaviors.

Another component of the education will be about the focus of patient-centered care and the memory care standards as established by the JCAHO (2014).

The global aim of this project is to improve dementia care on the 6A acute care unit. The specific aim, educating staff members about the benefits of nonpharmacological approaches in the management of challenging dementia-related behaviors and to encourage their use, is relative as the education is necessary before improvement can be expected to begin.

The process begins with multidisciplinary staff education. The process ends with positive patient outcomes and reduced numbers of challenging dementia-related behaviors. By working on this process now, it is expected that the implementation of nonpharmacological approaches, such as singing, reminiscing, walks, and engaging conversation will not only enhance patient and staff relationships but also improve patient quality of life and outcomes. It is important to work on this now because the number of patients with dementia, encountered by staff, is rising on a continual basis due to increased longevity.

Rationale

Utilizing "Microsystems at a Glance" (The Dartmouth Institute for Health Policy & Clinical Practice, 2015) as a guide, a microsystem assessment was performed on unit 6A. Unit 6A is an acute medical/surgical unit that has 33 operational beds. The purpose of this unit is to provide medical and post-surgical care to patients until they are stable enough to be safely discharged home or transferred to a less intensive level of care. This unit was opened for admissions in 1995 in tandem with the opening of the facility. The average length of stay (ALOS) for the third quarter of 2016 was 5.19 days. During this quarter, there were706 admissions and 873 discharges. The average age of patients on 6A is 67 and the population is

98% male. While 6A is referred to as medical/surgical unit, over 75% of the patients are admitted to this unit for medical treatment. Professionals on 6A include registered nurses, health technicians, mobility aids, physicians, medical residents, pharmacists, dieticians, social workers, and physical therapists.

This project was developed from concerns, which arose during practicum experiences, in regards to how challenging dementia-related behaviors were addressed. It was noted that, at any given time, there are between five and ten patients on the unit with dementia. More often than not, there is at least one patient which displayed significant and disruptive challenging dementia-related behaviors. It was also noted that nursing staff routinely administered antipsychotic medications in an effort to manage those behaviors. After these observations, a chart review was conducted and a performance gap was noted in the standard of care. During the chart review, it was determined that as many as 90% of patients of patients exhibiting challenging dementia-related behaviors were medicated with antipsychotic medications.

Learning needs assessments determine what needs to be taught, in which forum it should be taught, and how it should be presented to optimize learning (Bastable, 2014, p. 116). Learning needs were assessed using chart audits, observation, and informal conversations. It was determined that staff suffered from a knowledge deficit of the effectiveness of nonpharmacological interventions in managing challenging dementia-related behaviors. The most evident need in this microsystem is education. Chart reviews of behavioral notes and the medication administration record (MAR) have made it apparent that staff members are more inclined to administer a “PRN” psychotropic medication to manage such behaviors. While Karlin, Visnic, Shealy-McGee, & Teri (2014) conclude that implementation of nonpharmacological approaches have been shown to be effective in the management of

challenging dementia-related behaviors, the practices on 6A have not proved to be on the same parallel.

Through process mapping (see Appendix A) it became evident that there were multiple steps involved to manage challenging dementia-related behaviors with antipsychotic medications. This process provided a picture of exactly how many steps it took to manage challenging behaviors in this manner and it was clear that a simpler process could be implemented that upheld standards of care. The SWOT analysis (see Appendix B) demonstrated the strengths and weaknesses of the global aim and would be a helpful aid when developing an educational plan for staff members. The fishbone diagram (see Appendix C) illustrates factors that could be contributory to staff not using nonpharmacological approaches.

The majority of the project costs involve staff training. It is estimated that each training session will last approximately 30 minutes and there will be six sessions. Unit 6A has 46 RNs, 12 health technicians, and two mobility aids. The cost analysis (see Appendix D) provides a breakdown of the costs involved to launch this project.

The startup cost of this project will be $1173.00. In contrast, it takes roughly 30 extra minutes of RN time to manage the challenging dementia-related behavior with a psychotropic drug. This includes verifying the drug order, retrieving and administering the medication, and completing required documentation. While the actual cost of the drugs was not relinquished, it can be estimated that that each dose averages to be $45. With that said, each time a nonpharmacological approach is effective, there is a substantial savings. Considering that the psychotropic drug cost is $45 and the RN time involved in psychotropic drug administration time would be $16, it would fair to say that it would cost $61 each time a psychotropic was administered versus no additional cost if nonpharmacological approaches were applied. The

stakeholders in this project would include nursing staff, patients, educators, nurse managers, the chief nurse of operations, and the chief nurse executive.

Methodology

After reviewing behavioral documentation and MARs from unit 6A, it was determined that education for staff members, regarding the benefits of nonpharmacological approaches in the management of challenging dementia-related behaviors, was warranted. In order to carry out this project and achieve the global goal of improved dementia care and decreased incidences of challenging dementia-related behaviors, Rogers' "Diffusion of Innovation" (Cain & Mittman, 2002) was utilized as a guide. There are ten dynamics that are critical to innovation diffusion. They are, "relative advantage; trialability; observability; communications channels; homophilous groups; pace of innovation/reinvention; norms, roles, and social networks; opinion leaders; compatibility; and infrastructure" (Cain & Mittman, 2002, p. 5).

Relative advantage refers to the value or benefit of the innovation. This project has great value as it incorporates patient-centered care, is less tasking and time consuming than administering a psychotropic drug, and it address the memory care standards as established by the JCAHO (2014). Trialability allows the user to try the innovation without commitment and little investment. Staff will be required to attend a 30 minute training session and will be encouraged to try the nonpharmacological approaches to alleviate challenging behaviors. They can use these approaches intermittently after the education to determine their effectiveness and to become more accustomed to using them. Observability is being able to witness an innovation being adopted. When a staff member is implementing nonpharmacological approaches, other staff members will randomly observe these acts, see the effectiveness, and realize their value. One important aspect of observability is that, while there is one primary educator, staff

members actually teach each other through the implementation of these approaches. Communications channels are just that- paths of communication. The project leader and staff members will maintain open lines of communication to discuss progress and hiccoughs in the implementation. Homophilous groups have similar characteristics. They work in the same unit, they are caregivers, and they all desire positive outcomes for their patients. The pace of innovation/reinvention describes the stability and rate at which an innovation will diffuse.

It is anticipated that this improvement project will remain stable and that it will diffuse at a moderate pace. Norms, roles, and social networks relate to the system in which the innovation is diffusing and the rules that it is governed by. This project, although rather straightforward, will adapt to the environment that it is being rolled out in. Opinion leaders are the champions. Currently the project leader is the opinion leader, but as staff become more comfortable with implementing the approaches, other individuals may also be selected to serve as champions and act as an additional resource. Compatibility refers to the ability of the innovation to harmoniously exist with other systems within the area of diffusion. This project should blend nicely within the current system. Infrastructure is necessary for many innovations to diffuse. Staff members already have some knowledge and address dementia patients on an almost daily basis. That knowledge and experience will serve as the infrastructure, or foundation, for this project as they will be building on what they already know.

Literature Review

When concerns regarding staff management of challenging dementia-related behaviors arose, an initial assessment was conducted. It was realized, after a chart review, that as many as 90% of patients exhibiting challenging dementia-related behaviors were medicated with antipsychotic medications. The number is alarming as this does not coincide with the facility's

movement towards patient-centered care and considering the potential detrimental effects that psychotropic medications can impose upon dementia sufferers (Greenblatt & Greenblatt, 2016).

Debono et al. (2013) explain that a well formulated PICO question aids the research and reporting process. A PICO statement was developed in an effort to aid in locating relevant scholarly articles to support the global aim and the improvement project. The PICO question is as follows: In dementia patients displaying challenging dementia-related behaviors (P), do nonpharmacological approaches (I) when compared to psychotropic medications (C), reduce the frequency and severity of challenging dementia-related behaviors (O)?

A search of CINAHL, OVID, and Gleeson library databases was conducted using the words dementia, challenging behavior, antipsychotic, psychotropic, geriatric, and nonpharmacological approaches. The time frame used was 2011-2016.

Robitaille, Garcia, and McIntosh (2015) conducted a study aimed to evaluate the longitudinal relationship between challenging behaviors and cognitive functioning. The results demonstrate that there is an association between the level of cognitive functioning and the incidence of challenging behaviors. The study also concluded that patient-specific best practices result in a decrease in challenging behaviors.

Casey (2015) explored the use of psychiatric medications in the presence of challenging dementia-related behaviors. He related that the use of psychiatric medications may lead to an exacerbation of current behaviors or possibly even death due to medication reactions or from associated events such as falls.

Lemay et al. (2013) aimed to evaluate the knowledge and potential need for education regarding antipsychotic use to manage challenging dementia-related behaviors. Of the 779 direct care workers included in the study, 56% felt that medications were effective in the behavior

management and only 37% felt they could manage challenging behaviors without the use of antipsychotic medications. The study suggests that additional education regarding antipsychotic medications should be provided to staff with the aim of knowledge improvement.

Karel, Teri, McConnell, Visnic, and Karlin (2016) describe the expanded implementation of a program targeted to reduce the incidence and severity of challenging dementia-related behaviors, using nonpharmacological approaches, in the extended care arena of multiple Veterans Health Administration Medical Centers. They conclude that nonpharmacological approaches were indeed effective in reducing the incidence and severity of challenging dementia-related behaviors.

Karlin, Visnic, Shealy-McGee, and Teri (2014) aimed to evaluate the effectiveness of nonpharmacological interventions in the management of challenging dementia-related behaviors. They clustered challenging behaviors into six types: resistance to care, agitation, violence/aggression, vocalization, wandering, and other. The results of this study demonstrated that nonpharmacological approaches were effective in the management of challenging dementia-related behaviors as well as decreased incidence of anxiety and depression.

Steinberg and Lyketsos (2012) explore the safety concerns regarding the use of antipsychotics to manage challenging dementia-related behaviors. They affirm that adverse events such as stroke or death are of utmost concern. They also express that antipsychotics should only be considered as a last resort and after a comprehensive assessment is completed to dismiss medical causes that may be triggering the symptoms.

Timeline

This improvement project commenced on August 23, 2016 with a microsystem assessment of unit 6A. The steps that have been taken throughout the project have been outlined

(see Appendix E). The project is scheduled to conclude on December 5, 2016. This project may receive an extension to educate new employees that are hired for the unit. It is possible that this education may be extended to other units within the facility if positive results are obtained.

Expected Results

After the education sessions are completed, it is expected that the incidence of psychotropic drug use will decrease and the incidence of nonpharmacological approaches will increase in the management of challenging dementia behaviors. Considering that psychotropic drugs were initially administered approximately 90% of the time, it would be realistic to see a 50% drop in that rate. It can also be expected that staff members will have a new-found confidence when managing challenging dementia-related behaviors using nonpharmacological approaches as a result of the skills they learned from this project.

Nursing Relevance

Nursing is constantly evolving and growing and new evidence-based research is revealing itself every day. Nurses are forever learners for there is always something new to learn about. It could be a skill, a medication, or a new theory. This project will enable staff members to continue on their educational journey and allow them to disseminate this new information to their peers. Even more importantly, the focus of this project is to improve outcomes in patients afflicted with dementia utilizing nonpharmacological interventions. The skills learned from this project will help caregivers do just that.

Summary Report

The global aim of this project is to improve dementia care on the 6A acute care unit. The specific aim, educating staff members about the benefits of nonpharmacological approaches in the management of challenging dementia-related behaviors and to encourage their use, is relative

as the education is necessary before improvement can be expected to begin. This project unfolded on the 6A acute care unit which consists of 46 RNs, 12 health technicians, and two mobility aides, along with members from other disciplines. The average age of patients on 6A is 67 and the population is 98% male. While 6A is referred to as medical/surgical unit, over 75% of the patients are admitted to this unit for medical treatment.

The main component to project implementation is staff education. This was accomplished after reviewing behavioral documentation and MARs from unit 6A to determine how staff members managed challenging dementia-related behaviors. This review yielded that staff members managed such behaviors through the use of antipsychotic medications 90% of the time. A literature review was then conducted to gather the most current evidence-based research to support the project and disseminate that information to staff members.

A brief power point presentation was developed to assist in the education process. The power point highlighted the memory care requirements as established by the JCAHO (2014) as well as examples of challenging dementia-related behaviors and nonpharmacological approaches. Staff members were provided with copies of the power point for future reference and so that they could take notes during the presentation.

The pre and post project implementation results were remarkable (See Appendix F). It was determined that staff members administered psychotropic drugs, to manage challenging behaviors, approximately 90% of the time. It was estimated that there could realistically be a 50% decrease in that rate after project implementation. A follow up review of behavioral documentation and MARs revealed that staff members were only administering psychotropic drugs 33% of the time. The use of nonpharmacological approaches increased from10% to 77%.

Sustainability is dependent upon staff members realizing the benefits of the project and seeing positive results. Continued education will be provided on an annual and as needed basis. Project champions will be identified to provide continued support and encouragement to staff members. Project progress will be monitored and the project will be reevaluated for necessary changes if it should start to lose momentum.

References

American Association of Colleges of Nursing. (2007). *CNL white paper*. Retrieved from http://www.aacn.nche.edu/aacn-publications/white-papers/cnl-white-paper

American Association of Colleges of Nursing. (2013). *Competencies and curricular expectations for clinical nurse leader education and expectations*. Retrieved from http://www.aacn.nche.edu/cnl/CNL-Competencies-October-2013.pdf

Bastable, S. B. (2014). *Nurse as educator: Principles of teaching and learning for nursing practice* (4th ed.). Burlington, MA: Jones & Bartlett Learning.

Cain, M., & Mittman, R. (2002). *Diffusion of innovation in health care*. Retrieved from https://lmscontent.embanet.com/USF/MSN/N651/Docs/N651_M5_CHCF.pdf

Casey, D. A. (2015). Pharmacotherapy of neuropsychiatric symptoms of dementia. *Pharmacy and Therapeutics, 40*(4), 284-287. doi:http://0-dx.doi.org.ignacio.usfca.edu/10.3238/arztebl.2010.0320

The Dartmouth Institute for Health Policy & Clinical Practice. (2015). *Microsystems at a glance*. Retrieved from https://clinicalmicrosystem.org/workbooks/

Debono, V. B., Zhang, S., Ye, C., Paul, J., Arya, A., Hurlburt, L.,...Thabane, L. (2013). A look at the potential association between PICOT framing of a research question and the quality of reporting of analgesia RCTs. *BMC Anesthesiology, 13*(1), 44-54. doi:http://0-dx.doi.org.ignacio.usfca.edu/10.1186/1471-2253-13-44

Ervin, K. E., Cross, M., & Koschel, A. (2013). Reducing the use of antipsychotics in dementia care through staff education and family participation. *Journal of Nursing Education & Practice, 3*(6), 70-83. doi:http://0-dx.doi.org.ignacio.usfca.edu/10.5430/jnep.v3n6p70

Greenblatt, H. K., & Grenblatt, D. J. (2016). Use of antipsychotics for the treatment of behavioral symptoms of dementia. *Journal of Clinical Pharmacology, 56*(9), 1048-1057. doi:http://0-dx.doi.org.ignacio.usfca.edu/10.1002/jcph.731

The Joint Commission on the Accreditation of Healthcare Organizations. (2014). Approved: Memory care requirements for nursing care center accreditation. *Joint Commission Perspectives, 34*(1), 8-13. Retrieved from https://www.jointcommission.org/memory_care_requirements_nursing_care_center_accreditation/

Karel, M. J., Teri, L., McConnell, E., Visnic, S., & Karlin, B. E. (2016). Effectiveness of expanded implementation of STAR-VA for managing dementia-related behaviors among veterans. *The Gerontologist, 56*(1), 126-134. doi:10.1093/geront/gnv068

Karlin, B. E., Visnic, S., Shealy-McGee, J., & Teri, L. (2014). Results from the multisite implementation of STAR-VA: A multicomponent psychosocial intervention for managing challenging dementia-related behaviors of veterans. *Psychological Services, 11*(2), 200-208. doi:10.1037/a0033683

Lemay, C. A., Mazor, K. M., Fields, T. S., Donovan, J., Kanaan, A., Briesacher, B. A., Tjia, J. (2013). Knowledge of and perceived need for evidence-based education about antipsychotic medications among nursing home leadership and staff. *Journal of the American Medical Directors Association, 14*(12), 895-900. doi:10.1016/j.jamda.2013.08.009

Robitaille, A., Garcia, L., & McIntosh, C. (2015). Joint trajectories of cognitive functioning and challenging behavior for persons living with dementia in long-term care. *Psychology and Aging, 30*(3), 712-726. doi:http://0-dx.doi.org.ignacio.usfca.edu/10.1037/a0039333

Steinberg, M., & Lyketsos, C. G. (2012). Atypical antipsychotic use in patients with dementia: Managing safety concerns. *American Journal of Psychiatry, 169*(9), 900-906. doi:http://0-dx.doi.org.ignacio.usfca.edu/10.1176/appi.ajp.2012.12030342

U. S. Department of Veterans Affairs. (2016). *VA patient centered care*. Retrieved from http://www.va.gov/PATIENTCENTEREDCARE/about.asp

World Health Organization. (2015). *10 facts on dementia*. Retrieved from http://www.who.int/features/factfiles/dementia/en/

Appendix A

Process Map

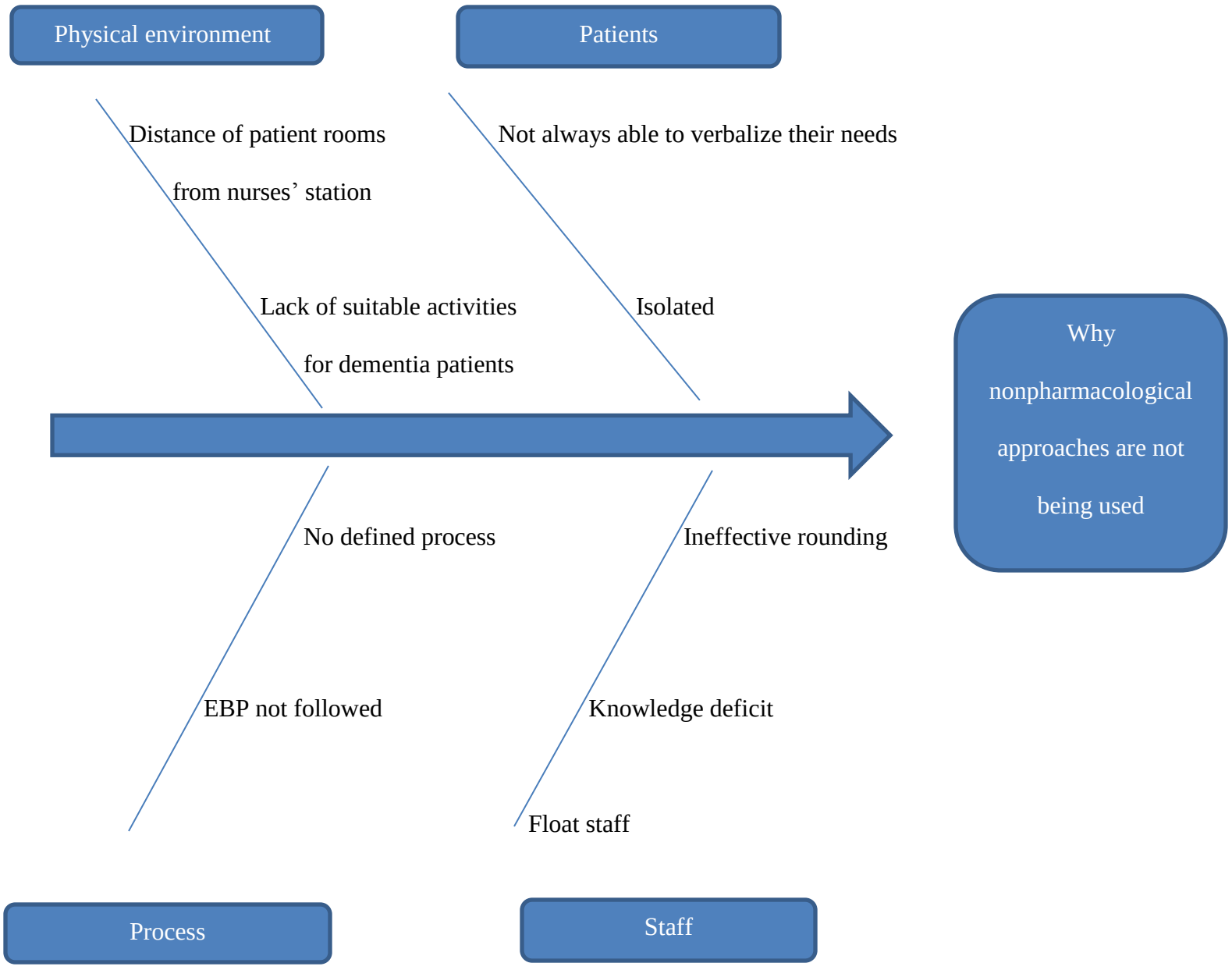
Appendix B

SWOT Analysis

Strengths	**Weaknesses**
Improving patient outcomes Preventing unnecessary use of antipsychotics Cost effective Educational growth	Staff resistance to change Staff may not realize benefit Staff time required for education
Opportunities	**Threats**
Improved patient-staff relationships Improved staff satisfaction Potential for expansion to other units	Fluctuating census Noncompliance

Appendix C

Fishbone Diagram



Appendix D

Cost Analysis

Resource	**Actual Cost**
CNL x1@$50/hour x 6 hours	$300
RN x 46@$32/hour x 0.5 hours each	$736
Health Tech x 12 @$20/hour x 0.5 hours each	$120
Mobility Aid x 2 @$17/hour x 0.5 hours each	$17
Miscellaneous	$30
Total	$1173

Appendix E

Project Timeline

Task Name	**Person Responsible**	**Start Date**	**End Date**
Microsystem Analysis	CNL Student	8/23/16	9/5/16
Needs Assessment/Chart Reviews	CNL Student	9/6/16	9/19/16
Literature Review	CNL Student	9/13/16	9/26/16
Obtain Approval	CNL Student	9/20/16	9/24/16
Develop Education Materials	CNL Student	9/25/16	10/3/16
Conduct In-services	CNL Student	10/26/16	11/14/16
Follow Up Chart Reviews	CNL Student	11/15/16	12/1/16
Present Audit Results to Nurse Manager	CNL Student	12/2/16	12/5/16

Appendix F

Project Results