**PICO Assignment: Dementia**

**INTRODUCTION TO DEMENTIA**

Dementia is a chronic disorder which is characterized by the impairment of not less than two functions of the brain such as judgment and the loss of memory. It is constituted by a group of symptoms that affects individual's behavior, memory, and language thereby restricting the level of participation of an individual in their daily activities. Persons who are likely to be diagnosed with Dementia often experience varied early signs as they are not common to everyone. The early signs could include withdrawal or depression, increased confusion, the loss of ability to engage in daily tasks and a reduced level of concentration whilst experiencing trouble in remembering recent events. Alford (2014) argued that the onset of dementia is higher for older adults, and the symptoms of the illness keep increasing with age. Moreover, patients suffering from dementia are recorded to undergo doubling of the condition in every five years after individuals get to 65 years(Alford, 2014). This could be attributed to the degeneration of the brain neurons which causes the failure of the brain to respond normally and effectively. In addition, dementia could be attributed to genetic factors as the condition can be inherited. The purpose of this paper is to discuss the Dementia disorder with the aid of the development of PICO questions and subsequently proposing the relevant treatment options with the aid of peer-reviewed databases.

**PICO Analysis of Dementia**

Dementia could result in causing brain damage to an individual mostly if the symptoms of the disease are ignored in the early stages of a patient’s life. in order to establish a PICO question that will aid in helping out a patient(s) suffering from dementia, it is necessary that the severity of the disease is considered. Consequently, it is also important to find out if the patient has another health condition which could be affected by the remedy offered to the patient to calm down dementia (Morrow, 2017). Additionally, it is also critical that the type of medication or remedy to be prescribed to a patient be considered and subsequently determining how active the treatment is likely to be. In the event that the type of medication to be prescribed to the patient is determined, it would be also imperative to consider the level of strenuous that the medication would take. The consideration of the impact that the medication would have on the patient and the subsequent period that the patient would spend in adhering to the medication is also beneficial. To sum it up, it would also be of great necessity to determine the possible outcome that could result after having a patient successfully adhere to the prescribed medication (Morrow, 2017). It is vital that the determination of the possible outcome be taken into account as it will determine if the medication would eventually eradicate dementia or just contribute to reducing it.

In the context that a clinical officer comes in to suggest a remedy such as brain and physical exercise to a patient, the most likely PICO question to be used in such a case would be: How doesBrain and Physical Exercising Equate to the actual Administration of Real Medication in the Treatment of Dementia in Geriatric Patients? Despite the fact that scientists need to engage in doing more research to finding out if keeping the mind active can attribute to delaying dementia andavoiding memory loss, a couple of studies have suggested on the effectiveness of brain exercise in helping geriatric patients to delay and avoid dementia.

**Search strategy**

The resources that are relevant in the PICO analysis of dementia will be primary sources and peer-reviewed articles retrieved from Walden University library that aim at addressing different components of the PICO questions. The search terms will be based on the keywordsdementia, occurrence and intervention and key phrases such as geriatric with respect to old patients. The Boolean search strings will use terms like “dementia occurrence”, “dementia intervention” or “pharmacological vs. non-pharmacological intervention of dementia” with respect to the keywords identified.

**Analysis of literature**

The article “*A Predictive model for dementia risk in elderly adults with pre-diabetes”* by Alford notes that a condition like the Pre-diabetes (PD) acts as a risk factor for dementia for patients between 65 to 95 years of age. Pre-diabetes has been described as the condition of having increased blood glucose level that affects normal human functioning. Alford (2014) explains that majority of lifetime illnesses and complicated are associated with PD thereby, creating the urgency of analysis. Conditions like impaired insulin signaling and insulin resistance significantly contribute to both PD and dementia linking the PD symptoms to dementia onset symptoms. The quantitative research method was used to analyze the relationship between the two by carrying out case-control design. The research sought to analyze the connection between dementia and Pre-diabetes in relation to race, SES groups, and other health risks. The cases of type 2 Diabetes linked to some symptoms contributing to dementia including the reduced functioning of cognitive and executive functioning (Alford, 2014). Similarly, other factors like gender did not play any part in differentiating the occurrence of the illness between male and female populations.

Secondly, the article*“Trends in diagnosis and treatment for people with dementia in the UK from 2005 to 2015”* by Donegan et al., (2017)addresses the connection between dementia patients and pharmacological treatment. In conducting the comparison in the treatment processes, this article provides substantial information towards the option of pharmacological treatment. The study engaged in a longitudinal retrospective cohort study with the aim of analyzing the number of patients and the prevalence of the illness across the UK. The findings indicated an increase in dementia cases from 0.42% to 0.82% from 2005 to 2015 indicating an increase in the pharmacological intervention (Donegan et al., 2017). The study further notes a positive increase in the treatment approach of dementia by the reduction of antipsychotic prescription to the prescription of anti-dementia drugs that were considered more reliable and effective.

*“Evaluating nurses' self-efficacy in caring for patients with dementia”* main objective of the analysis is to identify the health systems capacity to handle dementia cases. Hopkins (2017) in his study emphasizes the need for knowledgeable nurses in charge of handling dementia cases. Hopkins (2017) notes that the capacity of the health systems in handling illnesses influences patients quality of life and seeks to establish the capacity of the nurses in providing quality care to dementia patients. The study embarks on a quantitative method of analysis involving the use of a descriptive survey to examine the self-efficacy nature of nurses handling dementia patients. The study findings reported the need for nurses to have full confidence in diagnosing and treating dementia parents. However, the majority of the nurses were not flexible in administering medication to the patients preferring the senior doctors to take up the role. Hopkins identified the need for training opportunities for nurses to equip them with the skill of early diagnosis and administering medication to dementia patients.

The fourth article *“Effectiveness of cognitive rehabilitation as memory intervention for elderly adults with dementia”*focuses on the intervention means for alleviating some of the symptoms in dementia patients. Addressing the alternative of pharmacological treatment as the best approach to treating and handling dementia, Morrow (2017) embarks to analyze the effectiveness of cognitive rehabilitation for persons diagnosed with early-stage dementia. The study integrates a quantitative study guided by the quasi-experimental design through the pre and posttest. Morrow (2017) noted that though many studies supported the use of cognitive rehabilitation for the improved management of dementia in the early stages, the specific study did not prove the same. The lack of similar results from the same intervention was due to the inconsistency in support from the nursing care or the caretakers in charge of the patient. Morrow (2017) noted that the effectiveness of the cognitive rehabilitation method among dementia patients was consistency.

The final article *“Systematic review: Effective characteristics of nursing homes and other residential long‐term care settings for people with dementia”* or analysis of dementia conducted a systematic review of fourteen articles with the intention of comparing the environment for long-term care patients between the nursing homes and the residential long-term care patients. Zimmerman, Anderson, and Brode (2017) explain that the environment between the nursing homes and residential long-term care facilities do not differ regarding their capacity to care for dementia patients. There is, however, a difference in the administration of medication as not all facilities have the full capacity to do so. Zimmerman et al. (2017) noted that the availability of improved living conditions creates a relaxed environment for the patient's contribution to the decline of anxiety or agitation.

**Table 1: Evidence Table**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Article** | **Title** | **Citation** | **Study Methods** | **Study Purpose/Results** | **Conclusions** | **Study Limitations** |
|  | A Predictive Model for Dementia Risk in Elderly Adults with Prediabetes. | Alford, S. E. (2014). A Predictive Model for Dementia Risk in Elderly Adults with Prediabetes. *Walden Dissertations and Doctoral Studies.* | Case-control study | To determine the connection between dementia and prediabetes in relation to race, SES, and associated health risks.  There is no relationship between prediabetes and dementia. | There is no connection between prediabetes and dementia in relation to race and SES. However, other health factors like type 2 diabetes contribute to dementia. | The validity of the study was largely tested due to the use of a case-control study. Case-control studies validity is considered lower to other study methods. |
|  | Trends in diagnosis and treatment for people with dementia  in the UK from 2005 to 2015: a longitudinal retrospective  cohort study | Donegan, K., Fox, N., Black. N., Livingston, G. & Burns, Al (2017). Trends in diagnosis and treatment for people with dementia in the UK from 2005 to 2015: a longitudinal retrospective cohort study. *Lancet Public Health,* S2468-2667 (16), e149-1e156. | Quantitative Study. A longitudinal Retrospective cohort study | To describe changes in the proportion of people diagnosed with dementia and the pharmacological treatments prescribed to them over a ten year period from 2005 to 2015 at a time of UK policy strategies and prioritization of dementia.  There was an increase in the number of people diagnosed with dementia. However, the use of antipsychotic drugs reduced and there was a noted increase in the use of anti-dementia prescriptions. | There is a positive trend in the diagnosis and treatment of dementia across the UK. |  |
|  | Evaluating nurses' self-efficacy in caring for patients with dementia | Hopkins, W. (2017). Evaluating nurses' self-efficacy in caring for patients with dementia. *Walden Dissertations and Doctoral Studies.* | Quantitative descriptive survey design | To identify gaps in nurses care regime when dealing with dementia patients.  There is need to avail opportunities to increase the nurse's skills and knowledge to better handle dementia parents. | There is need to work on the gap between nurses and patients by availing of training opportunities on how to deal with dementia patients from diagnosis to treatment regimes. | The use of quantitative questions limited the amount of information provided as the participant answered to direct questions. |
|  | The effectiveness of cognitive rehabilitation as memory intervention for elderly adults with dementia. | Morrow, L. S. (2017). The effectiveness of cognitive rehabilitation as memory intervention for elderly adults with dementia. *Walden Dissertations and Doctoral Studies.* | Quasi-Experimental design, pre, and posttest | To analyze the effect of using cognitive rehabilitation as an intervention method in the early stages of dementia.  Cognitive rehabilitation is only effective if the patient's environment is constant and the caregivers and the nurses fully implement the process. | Cognitive rehabilitation method needs the full integration and collaboration with other key factors including the direct environment of the patient. | The researcher did not have access to individual scores of the tests carried out.  The increasing change in the health of the study subjects may have affected the results. |
|  | Systematic Review: Effective Characteristics of Nursing Homes and Other Residential Long‐Term Care Settings for People with Dementia | Zimmerman, S., Anderson, W. L., Brode, S. & Jonas, D.(2013). Systematic Review: Effective Characteristics of Nursing Homes and Other Residential Long‐Term Care Settings for People with Dementia. *Journal of the American Geriatrics Society,* 1399-1409. | Systematic review | To review the effect of care for the dementia patients in nursing homes and residential long-term care settings.  The access to care in both nursing homes and residential long-term care settings do not vary or have a significant difference. The different mainly occurs in cases where there is medication. | There is the need for more research to guide the selection process of the nursing home or residential care settings. | The application of different policies and strategies made it challenging to generate uniform conclusions in regards to public nursing homes and private residential long-term care settings. |

**Conclusion**

Medical study shows the necessity of keeping the brain active and busy as it helps people in general to have a less likelihood of a decline in thinking skills. Dementia is a widely covered and researched illness, due to its complexity and sensitive symptoms, the majority of the researchers have opted to address its different elements starting from diagnosis, access, treatment and alternative interventions. According to the information gathered, dementia is common in geriatric patients. Other complications arise with dementia depending on the access to care, method of treatment and the self-efficacy of the care providers depending on their skills and abilities. The real medication for the treatment of dementia offers the same help as that of exercise.

**Literature Review Matrix**

Part I: PICO Analysis of Research Topic

P: Patient or Population

I: Anticipated Intervention

C: Comparison group or Current standard

O: Outcome desired

Step 1: Frame your clinical question using the PICO method.

P: What are the effects of exercise on Geriatric patients?

I: Do brain and physical exercise among geriatric patients reduce effects of dementia?

C: How does brain exercising compare to real medication in the treatment of dementia?

O: What is the likely outcome in the use of brain and physical exercise rather than real treatment?

**Step 1: Resources utilized to find articles that pertain to dementia**

| **Electronic Databases** | **Research or Professional Organizations** | **Experts in the Field to Consult** | **Books, Encyclopedias, Handbooks** |
| --- | --- | --- | --- |
| Alford, S. E. (2014). A Predictive Model for Dementia Risk in Elderly Adults with Prediabetes. *Walden Dissertations and Doctoral Studies.* |  |  |  |
| Donegan, K., Fox, N., Black. N., Livingston, G. & Burns, Al (2017). Trends in diagnosis and treatment for people with dementia in the UK from 2005 to 2015: a longitudinal retrospective cohort study. *Lancet Public Health,* S2468-2667 (16), e149-1e156. |  |  |  |
| Hopkins, W. (2017). Evaluating nurses' self-efficacy in caring for patients with dementia. *Walden Dissertations and Doctoral Studies.* |  |  |  |
| Morrow, L. S. (2017). The effectiveness of cognitive rehabilitation as memory intervention for elderly adults with dementia. *Walden Dissertations and Doctoral Studies.* |  |  |  |
| Zimmerman, S., Anderson, W. L., Brode, S. & Jonas, D.  (2013). Systematic Review: Effective Characteristics of Nursing Homes and Other Residential Long‐Term Care Settings for People with Dementia. *Journal of the American Geriatrics Society,* 1399-1409 |  |  |  |

**Step 2: Search terms and criteria**

| **Keywords and Phrases** | **Major Authors** | **Inclusion Criteria** | **Exclusion Criteria** |
| --- | --- | --- | --- |
| Understanding Dementia |  | From 2013 onwards | More than five years since the publication |
| Dementia, occurrence, and intervention |  | Peer-reviewed publication | Articles and websites |
| Dementia across gender |  | USA Literature |  |
| Dementia, diagnosis, and treatment |  |  |  |

**Step 3: Identify Boolean search strings.**

Dementia AND occurrence

Dementia AND intervention

Pharmacological OR non-pharmacological intervention of dementia

**Part III: Analysis of Literature**

**Step 1: Summary of the five articles used in the research**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
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| Donegan, K., Fox, N., Black. N., Livingston, G. & Burns, Al (2017). Trends in diagnosis and treatment for people with dementia in the UK from 2005 to 2015: a longitudinal retrospective cohort study. *Lancet Public Health,* S2468-2667 (16), e149-1e156. | Quantitative Study. A longitudinal Retrospective cohort study | To describe changes in the proportion of people diagnosed with dementia and the pharmacological treatments prescribed to them over a ten year period from 2005 to 2015 at a time of UK policy strategies and prioritization of dementia.  There was an increase in the number of people diagnosed with dementia. However, the use of antipsychotic drugs reduced and there was a noted increase in the use of anti-dementia prescriptions. | There is a positive trend in the diagnosis and treatment of dementia across the UK. |  |
| Hopkins, W. (2017). Evaluating nurses' self-efficacy in caring for patients with dementia. *Walden Dissertations and Doctoral Studies.* | Quantitative descriptive survey design | To identify gaps in nurses care regime when dealing with dementia patients.  There is need to avail opportunities to increase the nurse's skills and knowledge to better handle dementia parents. | There is need to work on the gap between nurses and patients by availing of training opportunities on how to deal with dementia patients from diagnosis to treatment regimes. | The use of quantitative questions limited the amount of information provided as the participant answered to direct questions. |
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| Zimmerman, S., Anderson, W. L., Brode, S. & Jonas, D.  (2013). Systematic Review: Effective Characteristics of Nursing Homes and Other Residential Long‐Term Care Settings for People with Dementia. *Journal of the American Geriatrics Society,* 1399-1409. | Systematic review | To review the effect of care for the dementia patients in nursing homes and residential long-term care settings.  The access to care in both nursing homes and residential long-term care settings do not vary or have a significant difference. The different mainly occurs in cases where there is medication. | There is a need for more research to guide the selection process for the nursing home or residential care settings. | The application of different policies and strategies made it difficult to generate uniform conclusions in regards to public nursing homes and private residential long-term care settings. |

**Step 2: The history and purpose of the research question**

The onset of dementia starts late in life, and it is sometimes difficult to diagnose or treat which can trigger other negative effects like depression, anxiety or mood swings. For this reason, it is important to identify the most appropriate means of handling the illness to recommend the intervention to nurses and caregivers. Improved intervention increases the quality of life, therefore despite the illness being a lifetime illness, the patients can still live without the constant break down and agitating relapses. The research question aiming to identify the best intervention method across different platforms generates information necessary for the improvement of care for the dementia patients and improved services by the nurses and caregivers.

**Step 3: The strengths and weaknesses of the existing**

The gap existing in the current literature has to do with the lack of adequate research across different socioeconomic regions. It is important to identify the trends and occurrence of dementia in both the poor and wealthy nations and regions to analyze the intensity, the available means of intervention and the variety of resources available to improve the patient’s quality of life.

**References**

Alford, S. E. (2014). A Predictive model for dementia risk in elderly adults with prediabetes.Walden Dissertations and Doctoral Studies.

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Morrow, L. S. (2017).The effectiveness of cognitive rehabilitation as memory intervention for elderly adults with dementia.Walden Dissertations and Doctoral Studies.

Zimmerman, S., Anderson, W. L., Brode, S., & Jonas, D. (2013). Systematic review: Effective characteristics of nursing homes and other residential long‐term care settings for people with dementia. Journal of the American Geriatrics Society, 1399-1409.