Using a PICO(T) Framework and Evidence to Develop Care Practices

When developing care practices for patients, the PICO(T) research framework, which expands to Population/Patient, Intervention, Comparison, Outcome, and Time, can be used to create an effective care plan and ensure that patients' needs are met. Relying on secondary research, the author of this paper will define a practice issue surrounding patients with dementia, apply the PICO(T) process, identify sources of evidence that may provide answers to the research question, explain key findings from articles, and explain the relevance of those key findings.

Use of the PICO(T) Approach when Caring for Patients with Dementia

The practice issue identified for resolution is the need to develop care practices that effectively manage agitation in patients with dementia in nursing homes that are outside of pharmacological approaches. The question being explored is: Is the non-pharmacological approach, specifically an intervention approach, more effective than the pharmacological approach in managing behavioral symptoms (such as agitation) in patients with dementia?

The intervention approach identified is *person-centered care* or *patient-centered care* (PCC), an approach that emphasizes more on an individual's experiences and the communication of his or her needs than on the pure implementation of a health care provider's expertise (Desai, et al., 2017). The population being studied are patients with dementia with agitative behavioral symptoms in nursing homes. As the objective is to explore care practices that address this issue, only factors related to care in nursing homes are considered. The study does not take into consideration cultural, political, and social factors (Kim & Park, 2017).

Identification of Sources of Evidence

DICE Model

The DICE (Describe, Investigate, Create, and Evaluate) model is a notable PCC intervention model that identifies optimal treatment options for patients with dementia with neuropsychiatric symptoms. Developed by a panel of interdisciplinary experts at the University of Michigan Program for Positive Aging, the model is constitutive of a four-step approach. The first step of the approach is the accurate description of the patient's behavior, the second is the identification of possible underlying causes, the third is the creation and implementation of treatment plans, and the fourth is the assessment of the strategies developed (Desai et al., 2017; Kales et al., 2014).

The model's essential recommendations for facilitating improvement in neuropsychiatric symptoms among patients with dementia are educating the caregiver; forging better communication between the patient and the caregiver; assisting the caregiver in organizing meaningful activities such as cooking, painting, or reading depending on the patient's interests; and training the caregiver on simplifying his or her work routines (Desai et al., 2017; Kales et al., 2014).

Individualized Intervention Model

The individualized intervention model is a model in which intervention activities are carried out based on the history, needs, abilities, and preferences of patients with dementia. In this model, PCC-based activities are directly carried out by trained health care staff with expertise in social work, recreational therapy, geriatric psychiatry, and psychology (Kim & Park, 2017).

Care Staff-Directed Model

In the care staff–directed model, PCC activities are based on the staff's education and training on empathy and person-centeredness. The model also makes a provision for offering

staff regular feedback for their work. The intervention period in such a model ranges from 3 months to 2 years (Kim & Park, 2017).

Findings from Articles

As PCC is a major nonpharmacological approach to treating agitation in patients with dementia, its effectiveness is studied by making a comparative analysis to the pharmacological approach to manage behavioral symptoms in patients with dementia. Pharmacological treatment in general refers to the use of psychotropic medication to manage agitation or neuropsychotic symptoms (NPS) in patients with dementia (Madhusoodanan & Ting, 2014; Kales et al., 2014). Some of the common pharmacological interventions include the use of antipsychotropics, antidepressants such as *sertraline* and *citalopram*, and sedative-hypnotics through the use of *benzodiazepines* to control acute agitation (Madhusoodanan & Ting, 2014). The use of psychotropic medication poses high risks of mortality and harmful side effects (Kales et al., 2014). Psychotropic medication is also expensive and is restricted by regulatory bodies. However, the use of pharmacological intervention is justified when the benefits outweigh the risks or in situations wherein nonpharmacological interventions have proven unsuccessful (Madhusoodanan & Ting, 2014).

The PCC approach has proven effective in addressing the etiology of aggressive outbursts. Unlike the pharmacological approach, which is based on treating symptoms, the PCC approach contributes to the resolution of underlying causes (Desai et al., 2017). The study by Kales et al. (2014) finds reasonable evidence of the DICE program's contribution toward better clinical practices and improvement in aggressive behavior, and it observes that the approach results in fewer hospitalizations and readmissions. In their systematic review and meta-analysis of 19 primary studies, Kim and Park (2017) found 15 studies that measure the impact of PCC on

agitation using the Cohen-Mansfield Agitation Inventory (an agitation mapping instrument) and the Brief Agitation Rating Scale. They found that 8 of the 15 studies show positive effects on agitation with individualized interventions (with a significant mean difference of -0.513), showing better effects than with care staff–directed interventions (with a significant mean difference of -0.160).

As this paper relies on secondary research on the PCC intervention to manage agitative behavior in patients with dementia in nursing homes, there are multiple time frames for the various intervention studies reviewed. While some studies had a long intervention period ranging from 9 months to 2 years, others had shorter intervention periods of just a few weeks. From the above exploration of the research problem based on the PICO(T) framework, it is clear that this framework has contributed to the delineation of precise intervention practices and has brought conceptual clarity on the issue of agitative behavior in patients with dementia.

Relevance of Findings from Articles

The study by Kales et al. (2014) was chosen as it provides a comprehensive explanation of the PCC-based DICE intervention program and its potential outcomes and draws an objective comparison of the program with pharmacological intervention. The study observed that the DICE model was developed by a panel of experts with years of clinical and research expertise in managing NPS in patients with dementia. The strategies formulated in the DICE approach were found to carry a strong evidence base. As it is evidence-informed, the DICE approach could be helpful for clinicians across diverse settings. Kales et al. (2014) conclude their study with a discussion on the potential of the DICE approach in enhancing clinical practices and ensuring the treatment of agitative behavior in patients with dementia.

The rationale for selecting the study by Kim and Park (2017) was that it presents a systematic review and meta-analysis of 19 primary intervention studies, of which 17 studies are from long-term care facilities. In their systematic review and meta-analysis of these studies, Kim and Park (2017) found that PCC has a significant impact on reducing NPS in patients with dementia. Kim and Park's (2017) review found the increased engagement between care providers and patients and the magnitude of the program's intensity to be the reasons for short-term PCC intervention having greater benefits in comparison to long-term intervention. The findings are relevant because they are based on 17 long-term, clinical PCC intervention studies comprising both controlled and non-controlled cluster-randomized trials conducted over the past 10 years (Kim & Park, 2017).

Kim & Park's findings prove to be the most credible. In their systematic review and meta-analysis of primary studies, Kim and Park's findings (2017) adhere to the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses. They also utilize analysis tools such as the *Cochrane Collaboration's risk of bias* and the *risk of bias assessment tool* to ensure quality screening of the studies.

Conclusion

There is a need to develop care practices that are outside of pharmacological approaches for managing agitation in patients with dementia. The PICO(T) framework was applied to determine if the intervention approach of *person-centered care* or *patient-centered care* (PCC) was more effective than the pharmacological approach by identifying sources of evidence, explaining the findings and proving the relevance of those findings. The articles by Kales et al. (2014) and Kim and Park (2017), provide precise, reliable, and relevant information to adequately explore the effectiveness of the PCC approach.

References

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