

Assessment 3: Implementing Evidence-Based Practice

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Implementing Evidence-Based Practice - Arthritis

There are 54 million people in the US who have been diagnosed with arthritis, which represents 1 in 4 adults. Arthritis is a common progressive disease. Arthritis is more prevalent among the elderly population, with around two-thirds of adults aged 65 and above being diagnosed with the condition (Kraus et al., 2019). Osteoarthritis (OA) is the most common subtype of arthritis, affecting 32.5 million US adults, while rheumatoid arthritis is the second most common subtype. Rheumatoid arthritis is estimated to affect around 1.3 million people in the United States, representing 0.6% to 1% of the population (Silverman et al., 2022).

Rheumatoid arthritis (RA) is an autoimmune disease that occurs when the body's immune system mistakenly attacks the joints, leading to chronic inflammation and damage. RA can affect people of any age, although it is more prevalent among women, with three times more women than men being affected. RA typically affects multiple joints symmetrically, with common symptoms including pain, stiffness, swelling, and redness of the affected joints (Kraus et al., 2019). RA is a chronic condition that can significantly impact a person's quality of life, causing disability and reduce physical function.

PICOT Question

In older people aged 60 years and above, does physical therapy and exercise, compared to usual care involving self-management, medication, and education, improve pain and physical mobility significantly within a period of 14 weeks?

Population: Older people (aged 60 years and above)

Intervention: Regular exercise and therapy

Comparison: Regular care including instruction, drug therapy, and self-management

Outcome: Pain and muscular mobility have improved

Time: Within a timeframe of 14 weeks (98 days)

Action Plan

To effectively implement an evidence-based practice project comparing the effectiveness of physical therapy and exercise in improving pain and physical mobility for older adults with osteoarthritis, a well-planned action plan is crucial. The first step of the action plan will be to conduct an in-depth literature review to learn more about recent studies on physical therapy and OA in elderly individuals.

The plan will then entail locating and gathering a sample of people 60 and older with only an osteoarthritis diagnosis. Then, the participants will be randomly assigned to either the physical therapy group or the usual care group. The standard care group will get self-management, drug therapy, and instruction, whereas the physiotherapy group will attend physical therapy sessions. In order to compare the changes in symptoms and function optimization between the 2 groups over the course of 14 weeks, the collected data will be examined using the proper analytical tools. The study's results will be shared through presentations at conferences and publications in peer-reviewed periodicals. The action plan will also include the implementation of the findings of the study in clinical practice. This will entail educating and teaching medical professionals on the application of physical therapy for elderly people with OA.

The timeline for the project i.e., 14 weeks will be established, outlining specific milestones and deadlines. This will ensure that the project is completed within the allotted timeframe. The plan will also include the necessary resources and tools needed to execute the study and disseminate its findings.

Overall, the action plan is designed to be reasonable and realistic, ensuring that the project's objectives are met within the specified timeframe. The recommendations for practice change are intended to improve the care provided to older adults with osteoarthritis, specifically addressing pain and physical mobility.

Impact on Stakeholders and Potential Barriers

The successful implementation of the proposed study will require approval from the hospital board management, as well as collaboration between university board members and hospital staff to direct data analysis and share resources during the study period. In addition, adherence to ethical guidelines for clinical trials and written consent from all study participants will be necessary. It is essential to ensure the protection of the participants' privacy and confidentiality throughout the study (Arifin, 2018).

Stakeholders involved in the project include hospital management, healthcare providers, university board members, study participants, and their families or caregivers. These stakeholders have different levels of involvement and can affect project implementation. The potential barriers to project implementation may include lack of funding, staff turnover, inadequate resources, and resistance to change from stakeholders.

To overcome these barriers, specific actions can be taken, such as securing adequate funding, maintaining open communication between stakeholders, ensuring proper training of healthcare providers, and implementing evidence-based practice recommendations. Furthermore, healthcare professionals can be informed about the significance of the research and the advantages of physical rehabilitation for elderly people with OA. Ensuring that the study is conducted in compliance with ethical and legal requirements is essential for successful project implementation (Sharplin et al., 2019).

Recruiting patients for clinical trials can be a complex process, especially when dealing with older adults with osteoarthritis. Several barriers may hinder the recruitment process, including a lack of willingness to participate, failure to meet inclusion criteria, and issues with time constraints. A systematic review of recruitment strategies for clinical trials found that using a multidisciplinary team approach, using culturally sensitive recruitment

strategies, and offering incentives to participants can help overcome some of these barriers (Li et al., 2020).

Patient adherence to the treatment plan is also a potential barrier, particularly in the usual care group, which may not receive the same level of support and intervention as the physical therapy group (Deshields et al., 2021). A randomized controlled trial on the effectiveness of self-management interventions for osteoarthritis found that tailored support and education, combined with patient empowerment, can significantly improve self-management skills and adherence to treatment (Yang et al., 2021).

Moreover, time constraints can also pose a challenge in the recruitment process, especially with the length of hospital stays. Researchers can address this issue by establishing clear eligibility criteria and involving clinical staff in the recruitment process. Additionally, they can use alternative recruitment strategies, such as community-based recruitment, to expand the pool of eligible participants.

Therefore, it is crucial to identify potential barriers and develop strategies to overcome them to ensure successful recruitment and adherence to the treatment plan during the study.

Outcome Measures

The proposed evidence-based practice project aims to evaluate the effectiveness of physical therapy and exercise compared to usual care involving self-management, medication, and education for improving pain and physical mobility in older adults with osteoarthritis. The Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) discomfort measure and the Standard Form 36 Health Survey (SF-36) Physical Function Scale, respectively, will be used as the outcome criteria to evaluate the project's success (Yeo et al., 2020). Additionally, standard clinical measurements like goniometry will be used to evaluate range of motion. The Quadruple Aim framework, that also places an

emphasis on improving quality experience, lowering medical costs, and enhancing the wellbeing of health professionals, is in line with these outcome measures (Jacobs et al., 2018). WOMAC discomfort measure and the SF-36 Physical Function Scale, respectively, will be used as the outcome criteria to evaluate the project's success. Additionally, standard clinical measurements like goniometry will be used to evaluate range of motion. The Quadruple Aim framework, that also places an emphasis on improving quality experience, lowering medical costs, and enhancing the wellbeing of health professionals, is in line with these outcome measures.

Previous studies have used these outcome measures to assess the effectiveness of physical therapy and exercise interventions in improving pain and physical function in patients with osteoarthritis (Li et al., 2020). The WOMAC pain scale has been widely used in clinical trials and has been found to be a valid and reliable tool for assessing pain in patients with osteoarthritis (Askari et al., 2019). Similarly, the SF-36 Physical Function Scale has been used in multiple studies and has been found to be a valid and reliable tool for assessing physical function in patients with osteoarthritis (Alotaibi et al., 2023). Finally, goniometry has been used in clinical settings to assess range of motion in patients with osteoarthritis (Bohannon & Smith, 1987). By utilizing these outcome measures, the evidence-based practice project can provide meaningful results that align with the Quadruple Aim framework.

Search Strategies and Databases

Database management systems and Database search Methods can be gathered using valid and reliable performance indicators like the WOMAC and the SF-36 at beginning and follow-up visits to determine the necessity of practice modification. To assess discomfort, rigidity, and physical function in individuals with hip or knee OA, the WOMAC is frequently used. The SF-36 is a self-reported output assessment that assesses life satisfaction and

health-related performance. The search strategy for identifying relevant literature for practice change should be comprehensive and systematic, including databases such as PubMed, CINAHL, and Cochrane Library. The relevance and value of the evidence should be critically appraised, and the findings summarized, including the level of evidence, quality, and limitations. The evidence should be used to support the practice change recommendations and guide the implementation of the project.

Summary

Implementing an evidence-based practice strategy offers a comprehensive way to assess a patient's condition, quality of life, and how the disease is affecting their day-to-day activities. This approach aims to improve patient care by addressing the four key domains of the "Quadruple Aim," namely enhancing the patient experience, enhancing population health, lowering healthcare expenses, and enhancing the well-being of healthcare professionals. By incorporating evidence-based practice into patient care, healthcare providers can provide more effective and efficient care, leading to better patient outcomes and higher patient satisfaction rates. In addition, this approach can help to reduce healthcare costs associated with treating chronic conditions such as arthritis, by focusing on preventative measures and early intervention strategies.

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