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Research Article

Enhancing Nursing Care Planning Through the Levett-Jones Clinical Reasoning Cycle: A Comprehensive Analysis

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Abstract

Nursing care planning is a critical aspect of providing quality patient care, and the use of structured frameworks can significantly support students in creating effective care plans. This paper delves into the application of the Levett-Jones Clinical Reasoning Cycle (CRC) as a framework to guide nursing students in developing comprehensive and patient-centered care plans. By synthesizing various studies on clinical reasoning, nursing process, and care planning, this paper aims to highlight the utility of the CRC in enhancing students' clinical reasoning skills and improving the quality of nursing care plans. The discussion will explore the key components of the CRC, its adaptation to different clinical settings, and its impact on nursing education and practice.

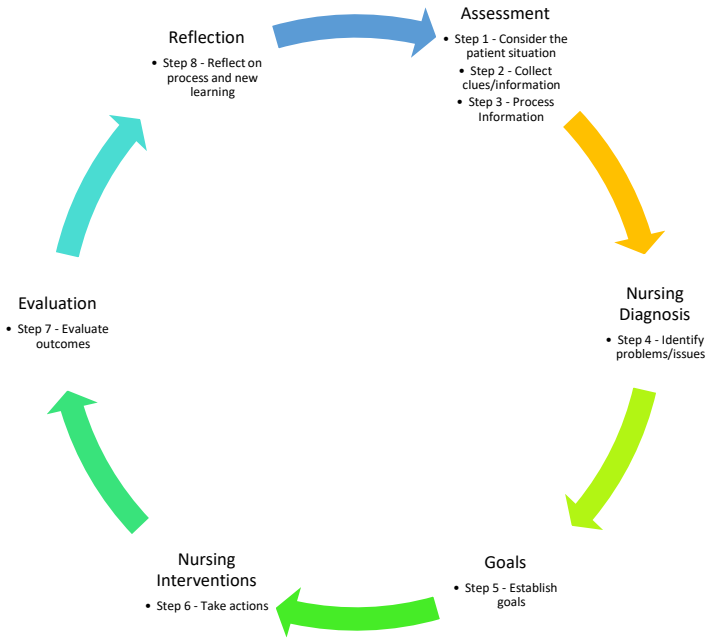
Keywords: Nursing care planning; Clinical Reasoning Cycle; CRC, Nursing education; Patient-centred care; Clinical reasoning skills; Frameworks in nursing; Nursing; Nursing process

Introduction

Nursing care planning is a fundamental process that involves assessing patient needs, setting goals, implementing interventions, and evaluating outcomes. To support students in this complex task, the use of structured frameworks such as the Levett-Jones Clinical Reasoning Cycle (CRC) can provide a systematic approach to developing effective care plans. The CRC, developed by Levett-Jones, emphasizes the importance of critical thinking, reflection, and decision-making in the nursing process. By integrating the CRC into nursing education, students can enhance their clinical reasoning skills and improve the quality of care plans they create. This paper will explore the utility of the CRC in guiding students through the care planning process and its implications for nursing education and practice.

In the realm of nursing education, the utilisation of structured frameworks such as the Nursing Process (NP) and the Clinical Reasoning Cycle (CRC) plays a pivotal role in guiding students through the complexities of care planning and decision-making (Maguire et al., 2021). The Nursing Process provides a systematic approach to patient care, encompassing assessment, diagnosis, planning, implementation, and evaluation, while the CRC focuses on critical thinking, reflection, and decision-making in clinical practice (Laukvik et al., 2022). Studies have underscored the significance of structured frameworks in enhancing nurses' clinical reasoning skills during care planning and documentation, emphasizing the importance of systematic approaches in guiding decision-making processes (Maguire et al., 2022).

The Value of the Clinical Reasoning Cycle



Source: Levett-Jones et al., 2010.

Figure 1 – Clinical Reasoning Cycle and relation with Levett-Jones clinical Reasoning cycle

The CRC, with its emphasis on elements like data collection, hypothesis generation, and outcome evaluation, offers students a structured pathway to enhance their critical thinking abilities and develop comprehensive care plans tailored to meet patient needs effectively (Gummesson et al., 2018). By incorporating the CRC into nursing education, students can organise their thoughts, prioritise interventions, and evaluate outcomes systematically, thereby improving their understanding of the nursing process and the quality of care plans they create (Erlam, 2022). Moreover, the CRC fosters reflection and continuous learning, essential components for professional development in nursing (Saifan et al., 2015).

Adaptations of the CRC have been explored in various clinical settings, including forensic mental health nursing, to ensure its relevance and applicability across diverse practice environments (Notarnicola et al., 2023). These adaptations highlight the flexibility of the CRC as a guiding framework and underscore the importance of tailoring clinical reasoning principles to specific clinical contexts to enhance the quality-of-care plans developed by students (Cappelletti et al., 2014). By adapting the CRC to different clinical settings, students can gain a deeper understanding of how to apply clinical reasoning principles effectively in varied healthcare environments, ultimately improving the quality of care they provide.

Incorporating the CRC into nursing education not only benefits students in creating effective care plans but also has broader implications for the nursing profession, clinical practice, academia, and policy. By providing a structured framework for clinical reasoning, the CRC equips students with the necessary skills to navigate complex patient care scenarios, make informed decisions, and deliver high-quality care (Guerrero, 2019). This structured approach not only enhances students' clinical reasoning abilities but also contributes to the overall improvement of patient outcomes and safety in clinical settings.

Furthermore, collaboration between clinicians and university staff in developing frameworks for interprofessional learning based on clinical reasoning structures like the CRC underscores the importance of integrating clinical reasoning into interprofessional education (Fattahi-Bafghi & Barkhordari-Sharifabad, 2020). By incorporating the CRC into interprofessional learning experiences, students can develop a holistic understanding of patient care, enhance teamwork and communication skills, and improve their ability to collaborate effectively in multidisciplinary healthcare settings (Hunter & Arthur, 2016). This collaborative approach not only benefits students but also contributes to the enhancement of interprofessional practice and patient-centered care delivery.

The use of the CRC in nursing education aligns with the evolving demands of the healthcare landscape, where nurses are expected to demonstrate advanced clinical reasoning skills, critical thinking abilities, and decision-making competencies. By integrating the CRC into nursing curricula, educators can better prepare students for the complexities of modern healthcare practice, ensuring that they are equipped to provide safe, effective, and patient-centered care. Moreover, the emphasis on clinical reasoning in nursing education can lead to improved patient outcomes, enhanced quality of care, and increased professional satisfaction among nurses.

Case Scenario

Patient Information:

Age: 82 years

Gender: Male

Medical History: Polypharmacy, Prostate Cancer, Chronic Kidney Disease (Stage 3), History of Falls, Dehydration, Vitamin B12 Deficiency, Loneliness

Clinical Reasoning Cycle Steps:

Consider the Patient Situation:

The patient is an 82-year-old male with a history of prostate cancer, chronic kidney disease, and polypharmacy, who recently experienced a fall at home. He presents with dehydration, a low Vitamin B12 level, and reports feelings of loneliness. The fall resulted in a minor laceration on his forehead and bruising on his left hip. The patient lives alone and is strongly attached to remaining in his home environment despite his increasing health challenges.

Collect Cues/Information:

Objective Data: BP 140/85 mmHg, HR 92 bpm, RR 22, SpO2 95%. Blood tests reveal a B12 deficiency (180 *pg*/mL) and elevated serum creatinine

consistent with CKD Stage 3. The patient takes 12 different medications daily.

Subjective Data: The patient reports dizziness before the fall, general fatigue, and feelings of loneliness. He also expresses concern about his ability to manage at home but is reluctant to consider alternative living arrangements.

Process Information:

The patient's fall may be attributed to a combination of factors (Reis da Silva, 2023a; Reis da Silva, 2024a), including polypharmacy, which can cause dizziness and hypotension (Reis da Silva, 2024b); dehydration, which exacerbates dizziness (Reis da Silva, 2024c); and B12 deficiency, which affects neurological function (Reis da Silva, 2024d). Chronic kidney disease further complicates his health, increasing his vulnerability (Reis da Silva, 2024e). Loneliness may contribute to his overall decline in health, as social isolation is linked to poor health outcomes (Reis da Silva, 2024f).

Identify Problems/Issues:

- Impaired physical mobility related to chronic conditions and the recent fall.
- Risk of recurrent falls due to polypharmacy, dehydration, and neurological impairment from B12 deficiency.
- Risk of further deterioration in health due to social isolation and loneliness.
- Potential complications related to chronic kidney disease and cancer management.

Establish Goals:

- Prevent future falls by addressing modifiable risk factors within one week.
- Improve nutritional status, including B12 levels, through diet and supplementation within two weeks.
- Enhance social interaction to reduce loneliness and improve overall well-being within one month.
- Optimise medication management to minimize the adverse effects of polypharmacy.

Take Action:

- Fall Prevention: Review and rationalise the patient's medications in collaboration with the prescriber to minimise the risk of dizziness and hypotension (Reis da Silva, 2024b). Encourage hydration by setting fluid intake goals and consider B12 supplementation to address the deficiency (Reis da Silva, 2024c; Reis da Silva, 2024d). Arrange for a home safety assessment and recommend assistive devices, such as grab bars and a walking aid (Reis da Silva, 2023b).
- Nutritional Support: Consult a dietitian to develop a nutrition plan that addresses the patient's B12 deficiency and supports his overall health (Reis da Silva, 2024d). Monitor hydration status regularly (Reis da Silva, 2024c).
- Social Engagement: Refer the patient to community resources, such as local senior centres or befriending services, to combat loneliness (Reis da Silva, 2024f). Review spiritual identity of the patient – possibly his religious group can help (if relevant). Consider the involvement of a social worker to explore options for in-home care support, helping the patient maintain independence while ageing in place (Reis da Silva, 2023c).
- Chronic Disease Management: Regularly monitor kidney function and adjust the treatment plan as necessary, considering the interactions between medications used for cancer, CKD, and other comorbidities (Reis da Silva, 2024e; Reis da Silva, 2024g; Reis da Silva, 2024h).

Evaluate Outcomes:

- Fall Prevention: The patient reports no further incidents of dizziness or falls after medication adjustment and increased hydration.
- Nutritional Status: B12 levels improved to within the normal range after supplementation and dietary changes.
- Social Engagement: The patient reports feeling less lonely after engaging with community programs, and his mental health shows improvement.
- Chronic Disease Management: Kidney function remains stable, and the patient reports better overall well-being.

Reflect on Process and New Learning:

The interdisciplinary approach was critical in addressing the multifaceted health issues of this older adult. The integration of social, medical, and nutritional interventions helped the patient remain safely at home, underscoring the importance of a holistic, patient-centered care plan in supporting ageing in place.

Conclusion:

The Levett-Jones Clinical Reasoning Cycle (CRC) serves as a valuable framework for supporting students in creating effective nursing care plans. By integrating the CRC into nursing education, students can enhance their clinical reasoning skills, improve the quality of their care plans, and ultimately provide better patient care. The adaptability of the CRC to different clinical settings, its emphasis on critical thinking and reflection, and its role in promoting interprofessional collaboration make it a valuable tool for guiding students through the complexities of care planning. Moving forward, further research and implementation of the CRC in nursing education are essential to continue enhancing students' clinical reasoning abilities and improving the overall quality of nursing care planning.

The integration of the Clinical Reasoning Cycle into nursing education offers a structured approach to developing students' clinical reasoning skills, enhancing their ability to create effective care plans, and preparing them for the challenges of contemporary healthcare practice. By leveraging the CRC as a guiding framework, students can navigate complex patient care scenarios, make informed decisions, and deliver high-quality, patient-centered care. The implications of using the CRC extend beyond student learning to impact the nursing profession, clinical practice, academia, and policy, ultimately contributing to the advancement of nursing practice and the improvement of patient outcomes.

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