

**Literature Review: The Use of Clinical Systems to Improve Outcomes and Efficiencies**

Student Name

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Instructor Name

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## **Literature Review: The Use of Clinical Systems to Improve Outcomes and Efficiencies**

Healthcare systems worldwide continue to improve various aspects of the provision of care to meet the needs of the patients and ensure improved health outcomes and patient satisfaction (Manias, 2019). Enhancing the quality of care requires the incorporation of efforts from healthcare providers as well as all stakeholders involved in care. One way of improving patient care is through active engagement of patients and their relatives in care through coordinated care and clear communication. The engagement of patients in care affects treatment adherence, satisfaction, healthcare cost, and self-management.

Consequently, there is improvement in the quality, safety, and delivery of care provided, as well as a reduction in the cost of care. Information technology and clinical systems have enhanced patient-centered care in various settings through improved technology (Manias, 2019). Patient Engagement Communication and Technology (PROSPECT) is an example of a clinical system that can be used to improve patient-centered care. The components of the program include electronic health records, checklist tools, patient portals, and messaging platform (Dykes et al., 2017). This paper is a literature review organized in an annotated bibliography that aims to address the impact of using patient-centered care using various components of the PROSPECT to improve the health outcomes of patients with chronic conditions.

**Dykes, P. C., Rozenblum, R., Dalal, A., Massaro, A., Chang, F., Clements, M., Collins, S., Donze, J., Fagan, M., Gazarian, P., Hanna, J., Lehmann, L., Leone, K., Lipsitz, S., McNally, K., Morrison, C., Samal, L., Mlaver, E., Schnock, K., ... Bates, D. W.**

**(2017). Prospective evaluation of a multifaceted intervention to improve outcomes in intensive care: The promoting respect and ongoing safety through patient**

**engagement communication and technology study. *Critical Care Medicine*, 45(8), e806–e813. <https://doi.org/10.1097/CCM.0000000000002449>**

The article by Dykes et al. (2017) highlights the importance of patient-centered care in the ICU setting. The article argues that despite most ICU patients being critically ill and unresponsive, engaging their family members in looking after them is also a form of engaging patients. Accordingly, these engagements aim to improve partnerships and the quality and safety of care. The study examined the effectiveness of patient-centered care and engagement programs in the medical ICU.

The intervention includes a patient-centered care and engagement training program and web-based technology involving a safety checklist, messaging platform, and tools to share care plans. Patients and care partners use online portals to access health information and participate in care plans while communicating with providers (Dykes et al., 2017).

The findings from the study encouraged the implementation of patient-centered care based on the benefits realized. The intervention led to a reduction in adverse events while markedly improving patient satisfaction (Dykes et al., 2017). The findings of this article are relevant and encourage the implantation of patient-centered care through effective communication strategies to involve patients and family members to improve overall care. Patients feel motivated and appreciated if they understand whatever is happening to them, as discussed by their healthcare providers.

**Penedo, F. J., Oswald, L. B., Kronenfeld, J. P., Garcia, S. F., Cella, D., & Yanez, B. (2020).**

**The increasing value of eHealth in the delivery of patient-centered cancer care. *The Lancet Oncology*, 21(5), e240–e251. [https://doi.org/10.1016/S1470-2045\(20\)30021-8](https://doi.org/10.1016/S1470-2045(20)30021-8)**

This article review presents summarized evidence-based information regarding eHealth's impact on cancer patients' care. They argue that the evolution of eHealth ushered in a new era of managing patients with various chronic conditions by improving patient-centered care (Penedo et al., 2020). Through eHealth, traditional in-person care with the adoption of real-time care that is dynamic with improved assessment and delivery of interventions.

The review provided a narrative of peer-reviewed articles published within the last 10 years. From the review, using eHealth to achieve patient-centered care is an acceptable practice due to its benefits. eHealth enhances the care of patients through improved diagnosis, planning of care, surveillance, and monitoring of patients.

Improved communication enhanced toxicity assessment, improved management, and optimized patient engagement throughout care (Penedo et al., 2020). The article's findings are important to add knowledge on the importance of using technology in long-term patient follow-ups. Engaging patients through eHealth can improve various aspects of their lives, including improving their quality of life by addressing their symptoms (Manias, 2019). Healthcare organizations should incorporate and implement eHealth to offer care for individuals with chronic conditions such as cancer.

**Tebeje, T. H., & Klein, J. (2021). Applications of e-health to support person-centered health care at the time of the COVID-19 pandemic. *Telemedicine Journal and E-Health: The Official Journal of the American Telemedicine Association*, 27(2), 150–158. <https://doi.org/10.1089/tmj.2020.0201>**

The surge of COVID-19 caught many people unaware, including the healthcare department. The rapid spread of the virus, with associated mortality and morbidity, shook the whole world. Prevention of COVID-19 requires implementing various measures,

including hand hygiene, avoiding social gatherings, and working from home. Restrictions on social gatherings meant that a limited number of people could access healthcare simultaneously. Limited access to healthcare, especially for patients with chronic disease, meant their health was in danger as they often required close monitoring. To close the gap in care access while reducing exposure to infections, healthcare departments embraced telehealth, an eHealth technology to help improve patient-centered care to meet patient needs. Telehealth allows for remote clinician and patient interaction without exposure to COVID-19 (Tebeje & Klein, 2021). This literature review aimed to assess the effects of telehealth on patient care and outcomes during the COVID-19 pandemic. Literature was systematically searched from publications dated January 1 and May 20, with eight studies out of the 60 articles included in the study. The study findings revealed the importance of telehealth and mobile health in improving patient engagement and access to care while at home (Tebeje & Klein, 2021). The quality of care, personalized experience, and satisfaction improved while using telehealth. This article is relevant to this literature review and adds more knowledge on the effects pandemics can have on healthcare, as well as providing alternative methods of overcoming the problems. Improving patient-centered care through telehealth is a promising way through which care can be offered in the future to manage chronic conditions, especially for patients in remote settings with a disability who have limited access to care (Lyles et al., 2020).

**Downes, E., Horigan, A., & Teixeira, P. (2019). The transformation of health care for patients: Information and communication technology, digiceuticals, and digitally enabled care. *Journal of the American Association of Nurse Practitioners*, 31(3), 156–161. <https://doi.org/10.1097/JXX.000000000000109>**

Downes et al. (2019) provide an insight into the role of information and communication technology (ICT) in transforming healthcare systems. The presence of innovative technology such as wearable technology, patient portals, remote monitoring, mobile applications, and new services such as virtual visits and telemedicine. The literature review aimed to prevent using digitally enabled tools and ICT in patient care. Applying the aforementioned technology in patient care improved the quality of care and patient experience. ICT helps in improving communication while enhancing patient engagement in their care. Patient-centered care improves health outcomes, curtails care costs, and enhances patient experience (Downes et al., 2019) e. Understanding the various ICT options is essential when determining which type to adopt to enhance patient-centered care (Manias, 2019). This article is relevant in educating healthcare providers about the different ICT options and how to apply these technologies to improve patient care effectiveness and efficiency.

### **Conclusion**

Technology is an integral aspect of patient care, as proven by the evidence. Using technology to improve patient-centered care is associated with various benefits, such as improving health outcomes, reducing the cost of care, improving the patient experience, and improving patient satisfaction. Enhanced communication and engaging the patient in making decisions increases treatment adherence and improves self-management.

Therefore, healthcare providers should adopt appropriate information technology that positively impacts patients' outcomes. Importantly, though, [the inclusion of nurses in the system development life cycle, as discussed in week 9 of NURS 6051](#), is crucial.

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