The Impact Of Nurse-Led Care Transitions On Reducing Hospital Readmissions

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Abstract

The objective is to determine the various nurse-led treatments for multimorbidity and identify the specific outcomes that are favorably influenced by these types of measures. In October 2020, searches were conducted in Cochrane CENTRAL, CINAHL, Embase, and MEDLINE. The grey literature sources consisted of OpenGrey, the Journal of Multimorbidity and Comorbidity, and reference mining. English-language papers of nurse-led treatments for individuals with multiple chronic conditions were selected based on agreement among the authors. Two reviewers conducted separate quality assessment utilizing JBI tools. The data were gathered and synthesized by using a pre-established taxonomy of treatments and a core outcome set. The interventions mostly consisted of case-management or transitional healthcare interventions, led by advanced practice nurses. These interventions focused on supporting individuals in self-managing their diseases and placed a strong emphasis on ensuring continuity of treatment. The improvement of patient-centred outcomes, such as the standard of medical care and health-related quality of life, was mostly seen. However, the impacts on healthcare usage, costs, mortality, and other outcomes were varied. Patients generally find treatments such as case management to be acceptable, and transitional care interventions may have a modest beneficial effect on healthcare consumption. Treatments include both long-term patient care and short-term treatments specifically aimed at critical junctures with a high risk. These interventions include advanced practice nurses collaborating with patients to create care plans,

aiming to streamline and enhance the quality of treatment in both the short and long term.

Keywords: health-related quality of life, nurse-led care transitions, hospital readmissions, review.

1. Introduction

Currently, individuals are experiencing a longer lifespan compared to previous generations, but they are also facing a growing number of years in deteriorating health conditions. Approximately 33% of individuals residing in the community are estimated to have multimorbidity, which refers to the presence of two or more chronic illnesses (Nguyen et al., 2019). This number tends to increase notably with older age and higher levels of deprivation (Head et al., 2021). Individuals with multimorbidity have a higher likelihood of death, disability, functional decline, increased healthcare use, and worse quality of life due to the combined impact of disease load and socioeconomic factors that contribute to poor health (Xu et al., 2017). Isolation exacerbates this danger, since older individuals with many chronic conditions who reside alone are more prone to needing urgent medical attention compared to those who live with companions (Barrenetxea et al., 2021). The organization of healthcare services also exposes individuals with multimorbidity to the dangers of fragmented care and excessive treatment demands (Morris et al., 2021).

The quality of care provided by experienced nurses in nurse-driven settings is equivalent to that of primary care led by physicians, as shown by Laurant et al. (2018). However, it is important to note that nurse-led care should not be seen as a mere substitute for physician-led care. The provision of nursing care is often holistic, meaning it takes into account all aspects of a patient's well-being. When delivered within a supportive and well-equipped organization, nursing care is based on establishing a therapeutic connection with the patient, with their objectives and preferences being the focus of their care (Bridges et al., 2013). Nursing treatments are well-suited for providing care to individuals with multimorbidity, since their priorities may change over time and may not be exclusively related to particular diseases. In order to perform their duties successfully, nurses need a strong foundation of evidence to guide their practice (O'Connor et al., 2018).

2. Multimorbidity

Multimorbidity is the simultaneous presence of two or more chronic illnesses (van den Akker et al., 1996). Comorbidity is the presence of additional chronic conditions alongside a particular index ailment, whereas multimorbidity refers to the coexistence of several chronic disorders. The distinction lies in the fact that comorbidity specifically considers other conditions as being comorbid with the index condition (Feinstein, 1970).In order to incorporate a multimorbidity paradigm into research or clinical practice, one must acknowledge that no one ailment takes priority and that treatment choices are made based on the person's total setting (Boyd & Fortin, 2010).

This difference is significant in the manner in which treatments are formulated and assessed. Interventions aimed at treating particular disorders and associated diseases may be focused and use outcomes relevant to each disease, but may not be applicable to individuals with several coexisting medical problems. Multimorbidity therapies are often designed to be more generalized, making it more challenging to establish appropriate outcomes for measuring their efficacy (Harrison et al., 2021).

It is necessary to additionally contemplate the definition of a chronic ailment. Medical conditions such as asthma or diabetes fulfill this criterion. However, when considering an individual, it is crucial to take into account symptoms (such as difficulty breathing or discomfort) or risk factors (such as being overweight or living in poverty), since these variables also have a significant role (Willadsen et al., 2016). The inclusion of a limited number of chronic diseases in the study may restrict the applicability of the results, since it may not accurately capture the full extent of multimorbidity.

The most compelling evidence for supporting therapies for concurrent diseases is derived from trials that specifically target disease clusters or aim to enhance outcomes of common comorbidities, such as depression (Smith et al., 2021). The evaluation of most multimorbidity therapies often relies on disease-specific outcomes (Xu et al., 2017), which may restrict the applicability of these effects to populations with varying combinations of diseases. Patient-centered approaches that promote self-management are increasingly recognized as essential (Poitras et al., 2018; Smith et al., 2021).

3. Care led by nurses

Person-centred care, also known as person-oriented care, is a fundamental principle in current health policy, especially in the field of nursing. It serves as a theoretical foundation for planning, implementing, and assessing nursing interventions. Essential components of person-centred nursing are actively involving patients, making decisions together, demonstrating empathy, addressing physical requirements, and respecting the patient's views and values. When assessing the success of these therapies, it is important to consider factors such as patient satisfaction, the extent to which they are involved in their own care, their overall sense of well-being, and the existence of a therapeutic culture (McCormack & McCance, 2006).

Community-based nurse-led initiatives include a wide array of topics, such as walk-in clinics, primary care clinics, smoking cessation programs, women's health services, and healthcare for homeless individuals. Research has shown that these treatments effectively enhance healthcare accessibility, symptom control, and many disease-specific indicators (Randall et al., 2017). In contrast, there is compelling data indicating that peri-discharge treatments of different levels of complexity are ineffective in preventing hospital reattendance when compared to standard care (Wong et al., 2021). Regrettably, we cannot apply these results to individuals with multimorbidity.

4. Interventions using case management

Case-management interventions involved conducting thorough patient assessments, creating personalized care plans, and primarily aimed at enhancing the consistency of care. Certain case-managers have extensive clinical expertise (Lupari, 2011; Randall et al., 2014) and served as the main healthcare provider, while others collaborated with the patient's primary care team (Boult et al., 2011; Boyd et al., 2008; Steinman et al., 2018). Multiple interventions necessitated case-managers to undergo customized training (Boult et al., 2011; Boyd et al., 2008; Lupari, 2011; Moran et al., 2008; Steinman et al., 2018). Nurse case-managers were present in primary care, secondary care, and community settings, as documented by various studies (Boult et al., 2011; Boyd et al., 2008; Dorr et al., 2008; Steinman et al., 2018; Taveira et al., 2019; García-Fernández et al., 2014; Valdivieso et al., 2018; Hjelm et al., 2015; Lupari, 2011; Moran et al., 2008; Randall et al., 2015; Sadarangani et al., 2019).

5. The impact of case-management interventions

Case-management interventions yielded favorable outcomes in various aspects of patient well-being, including health-related quality of life, self-management behavior, pain and disease management, nutrition, daily activities, communication with healthcare providers, prioritization of needs, trust-building, advocacy, and overall quality of care. The impact on health care was varied. Although certain studies have observed decreases in the number of days spent in bed and the use of emergency care as a result of community-based interventions (Lupari, 2011; Sadarangani et al., 2019), two extensive studies on primary care interventions did not find a reduction in the majority of healthcare service interactions (Boult et al., 2011; Dorr et al., 2008). Two interventions conducted in hospitals also failed to identify any decreases in healthcare use (García-Fernández et al., 2014; Valdivieso et al., 2018). The effects of cost reduction and mortality were both varied and inconclusive.

A community intervention conducted in Northern Ireland showed a notable decrease in healthcare expenses (Lupari, 2011), however a primary care-based intervention from the United States did not result in substantial savings (Leff et al., 2009; Sylvia et al., 2008). Two studies conducted with hospital case-managers found no decrease in mortality rates at 90 days (García-Fernández et al., 2014) and 12 months (Valdivieso et al., 2018). However, a comprehensive study involving a community-based nurse case-manager intervention with 3432 participants showed significant differences in the number of deaths in favor of the intervention group after 1 year. Although there was a slight decrease in mortality rates after 2 years, it was not statistically significant (Dorr et al., 2008).

The studies by Sadarangani et al. (2019) and Valdivieso et al. (2018) found mixed effects on mental health, specifically depression, loneliness, and cognitive impairment. The studies by García-Fernández et al. (2014), Lupari (2011), and Sadarangani et al. (2019) also found mixed effects on caregiver support. Lupari (2011) found mixed effects on physical functioning. Boyd et al. (2010) and Randall et al. (2014) found mixed effects on the quality of care from a physician's perspective. The qualitative results indicated that a community-based intervention might enhance the process of identifying cases for referral to other services. However, the

quantitative data showed that the same intervention did not lead to a decrease in the risk of falls (Sadarangani et al., 2019).

6. Transitional care interventions

Transitional care interventions are brief and aim to coordinate patient care and modify the care process. The interventions examined in this review specifically addressed the transition from the hospital to home. All treatments included home visits, however one research compared a combination telephone and home visit service with a telephone-only service (and normal care) (Chow & Wong, 2014). A research conducted by Jackson et al. (2016) investigated the impact of a home visit by a nurse as part of an existing transitional care strategy.

7. Summary

Nurse-led interventions for multimorbidity include the main nurse taking responsibility for continuous care and working in cooperation with the patient to establish and evaluate tailored patient-centered care plans. Long-term treatments, such as case management, or quick interventions targeted at high-risk times, such transitional care, may be used. The available information suggests that both techniques are deemed acceptable by patients and have the potential to enhance satisfaction. However, the evidence about advances in health services is less conclusive. As researchers and practitioners, it is imperative that we acknowledge the intricacy of these treatments and the specific individuals they are intended for. Consequently, we must carefully strategize our assessments and treatment to align with these factors.

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