



THE EFFICACY OF NURSE-LED CLINICAL ADVANCEMENT INITIATIVES AND PROGRAMS FOR CAREER PROGRESSION

Sarah Mubarak Bajuwaiber, Sahar Abdullah Alqarni, Khulood Eissa Aswani, Abdulsalam Saud Said Alshallali, Essa Salah Aljohani, Emad Faisal Shabander, Naif Noman Alshammari, Seham Abdallah Al-Harbi, Ohud Salem G Alshammari, Hanan Maran J Alanazi, Shaaa Thani Alshammari, Mashael Thani Alshammari, Hanan Hamoud A Aldhafeeri, Abdullah Mohammed Albakri

Abstract

Advanced nurse practitioners play a crucial role in enhancing the quality of patient care and have significant potential to enhance the overall health of individuals worldwide. Following the official acknowledgment of advanced nurse practitioners by the International Council of Nurses and other relevant organizations, this function has been widely implemented in many departments and clinical specializations, especially in nations with high economic levels. To assess the efficacy of advanced nurse practitioners in comparison to physicians-led/usual care (care overseen by medical doctors or non-advanced nurse practitioners). The databases MEDLINE, EMBASE, CINAHL, Cochrane registry, Cochrane trials, and Cochrane EPOC (PDQ Evidence) were searched that examined the effects of advanced nurse practitioners on patient care and health resource utilization outcomes. The findings of this review provide evidence supporting the positive impact of advanced nurse practitioners on various clinical and service-related outcomes. These outcomes include patient satisfaction, waiting times, management of chronic diseases, and cost-effectiveness. The positive effects were particularly notable when comparing advanced nurse practitioner-led care to care provided by medical practitioners or usual care practices. The review encompassed primary, secondary, and specialist care settings, and included both adult and pediatric populations.

Keywords: Advanced Nurse Practitioners (ANPs) Initiatives, Programs, Career Progression.

1. Introduction

Advanced Nurse Practitioners (ANPs) are a distinct group of nurses that possess specialized knowledge and enhanced clinical abilities. Following the official acceptance and acknowledgment of advanced nurse practitioners by the International Council of Nurses and other regulatory bodies and organizations, this role has been embraced by most departments and clinical specialties. This is especially true in high-income countries, such as the United States, United Kingdom, Australia, New Zealand, and the Netherlands, which are classified as high-



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income countries by the World Bank in 2019 (Scanlon et al., 2020). Advanced nurse practitioners have been recognized for their ability to enhance patient care and improve patient experiences. Simultaneously, this approach aims to decrease the burden on medical personnel, leading to enhanced cost-effectiveness and efficiency in healthcare services, ultimately resulting in improved patient satisfaction. Recent evidence suggests that advanced nurse practitioners can deliver care at a level comparable to physicians, including both junior and senior clinicians and medical doctors. In certain instances, nurse practitioners may even achieve better outcomes in terms of patient satisfaction, waiting times, management of chronic diseases, and cost-effectiveness. While the

International Council of Nurses has supported this position, Carney (2014) emphasizes the importance of clearly defining the unique characteristics of advanced nursing practice, identifying the essential competencies and capabilities of advanced nurse practitioners, and investigating effective strategies for maintaining and implementing these practices. Furthermore, the advancement of advanced nurse practitioners on a global scale is still in the process of development, and ongoing research is necessary to accurately track and assess the growth of ANP. In this context, this study seeks to examine the influence of advanced nurse practitioners' position and practice on nurse-led care, particularly when working with other critical health professional groups that have historically assumed leadership in this care.

The International Council of Nurses has officially defined an advanced nurse practitioner as a registered nurse who has obtained additional specialized knowledge, clinical skills, and advanced decision-making abilities. The specific responsibilities of an advanced nurse practitioner may vary depending on the specific needs of the situation (ICN, 2002).

In recent years, there have been up to 13 distinct names used to refer to advanced nursing practice. These titles include clinical nurse specialists (CNS), advanced practice nurse (APN), Advanced Practice Registered Nurse (APRN), nurse consultant (NC), nurse endoscopist, and nurse anaesthetist (Cooper et al., 2019). This has resulted in ambiguity about the definition and structure of roles, as well as their specific place within the medical disciplines (King et al., 2017). In recent years, there has been a growing utilization of advanced nurse practitioners (ANPs) such as CNS, APN, and NCs in various medical disciplines. This trend has been observed globally over the past two decades (Delamaire and Lafortune, 2010). It is worth noting that the healthcare industry is currently facing significant challenges due to factors such as increasing population numbers, an aging demographic, a rise in chronic diseases, shortage of frontline health professionals, and financial constraints (Ham, 2017).

Efforts to tackle these concerns have included examining the role of advanced nurse practitioners in adjusting to and dealing with such challenges, as well as creating new initiatives to uphold and enhance patient care practice (Baileff, 2015). ANPs are presently recognized as crucial in addressing the intricate care requirements of patients and producing overall enhancements in the quality and safety of patient treatment (Brook and Rushforth, 2011).

Advanced nurse practitioners play a vital role in enhancing the cost-effectiveness and efficiency of healthcare delivery, as well as reducing waste. Nevertheless, it is methodologically challenging to perform research that can directly quantify the effect (both financial and non-financial) of advanced nurse practitioners in the healthcare field as the independent variable that contributes to improved patient outcomes.

Carter and Chochinov (2007) conducted a systematic study to assess the influence of nurse practitioners (NP) on four crucial outcomes in the Emergency Department: cost, quality of service, satisfaction, and waiting times. Upon thorough examination of the main data, the authors proposed that nurse practitioners effectively decreased waiting times, fostered elevated levels of patient satisfaction with treatment, and delivered care that was on par with that of a senior medical doctor. There was no evidence of any beneficial impact on expenses, which was further exacerbated by a lack of adequate information about the recruitment of medical professionals.

Wilson et al. (2009) conducted a systematic review to investigate the clinical effectiveness of advanced nurse practitioners in managing minor injuries in adults in the Emergency Department. The study found that there was no statistically significant difference between the management provided by advanced nurse practitioners and that provided by junior doctors. This study aims to enhance earlier research by providing more information about the extensive roles and capabilities of Advanced Nurse Practitioners (ANPs) in both primary and secondary care settings. It specifically focuses on comparing ANP-led care with physician-led care and/or customary care.

The international recognition of the increased adoption of advanced nursing practice highlights its efficiency and influence. Advanced nurse practitioners are believed to be present in over 70% of global healthcare systems (Parker and Hill, 2017; Sheer and Wong, 2008). Advanced nurse practitioners have a widespread presence globally. They have been found to make significant contributions to patient care and outcomes. They play a key role in improving hospital admission and readmission rates, as well as reducing healthcare costs and enhancing efficiency in primary and secondary care settings (Parker and Hill, 2017). Table 6 presents a comprehensive overview of the existing global landscape of advanced nursing practice, including the specific requirements, skills, and legislation for each country of origin.

The studies included in this review examined the effects of advanced nursing practice on various outcomes. Positive benefits were observed in the management of dyspepsia, medication costs and requirements, health status, patient satisfaction levels, duration of time spent in outpatient clinics, physical functioning, blood pressure levels, frequency of urinary symptoms, severity of rheumatoid arthritis symptoms and related costs, and frequency of incontinence, pressure ulceration, and aggressive behavior.

2. Advanced nurse practitioners

Advanced nurse practitioners exhibited higher compliance with prescribed aims and practical recommendations. The major themes identified represent the many ways in which advanced

nurse practitioners are now working in clinical practice, ranging from long-term nursing care facilities to inpatient clinics. In total, 13 randomized controlled trials (RCTs) were included in this review. The majority of these trials found that care provided by advanced nurse practitioners had positive effects on patient care and service outcomes. These outcomes included reductions in symptom severity, improvements in physical function, increased patient satisfaction, shorter waiting times, and lower costs. No researches were identified that investigated the influence of advanced nurse practitioners (NPs) on staff experiences and work satisfaction. However, Krichbaum et al. (2007) recognized that gerontological advanced practice registered nurses (APRNs) establish effective connections between current scientific knowledge and nursing home personnel. Several studies provide evidence for the beneficial effects of collaborative treatment involving advanced nurse practitioners and medical professionals. The researches were mostly carried out in critical care settings, where advanced nurse practitioners possess technical abilities comparable to those of medical professionals. For instance, they are proficient in tasks such as obtaining blood gas samples via arterial lines and analyzing the results.

Additionally, several studies have examined the effects of nurse-led care on comparable outcomes, mostly in primary care settings. As an example, Shum et al. (2000) conducted a multi-centered randomized controlled experiment to evaluate the acceptability and safety of a minor illness service in general practice. The study compared the performance of trained nurses and doctors. It was shown that patients expressed higher levels of satisfaction with the treatment they got from nurses in comparison to the care given by physicians ($p < 0.05$).

In a separate experiment conducted in a primary care setting, Moher et al. (2001) assessed the efficacy of a nurse-led service vs a general practitioner-led service in promoting secondary prevention of cardiovascular disease among a group of elderly individuals. The findings indicated that patients allocated to the nurse group had more frequent evaluations of blood pressure, cholesterol, and smoking status. However, the clinical outcomes associated with these assessments were similar across the two groups at the end of the trial. In addition, Sanne et al. (2010) investigated the effects of 'nurse-led' vs 'doctor-led' treatment of anti-retroviral medication for patients with human immunodeficiency virus.

The findings indicated a moderate degree of evidence supporting the notion that nurses have a favorable impact on patient satisfaction levels and clinical or health status markers, such as blood pressure. Nevertheless, when compared to this research, other outcomes such as patient satisfaction and death exhibited a lesser level of assurance and proof. The authors' conclusion is based on the presence of data suggesting that nurses likely provide treatment that is equivalent to or perhaps better than that provided by physicians, namely for a variety of minor and urgent diseases as well as chronic disorders.

In a previous systematic review, Laurant et al. (2005) validated that skilled nurses could provide treatment safely and obtain results that were just as good as those of physicians. However, it is important to note that the evaluation included studies with various methodological

shortcomings and a limited period of patient follow-up. Several further assessments have endorsed and regarded advanced nurse practitioners as experts capable of providing equivalent, and sometimes even greater, treatment compared to doctors. Swan et al. (2015) did a systematic evaluation of 10 randomized studies including more than 10,000 patients. The purpose was to examine the safety and effectiveness of advanced nurse practitioners in delivering acute care. The duration of the follow-up period varied from one to two years. Importantly, advanced nurse practitioners demonstrated an equivalent or enhanced advantage in terms of several physiological measurements, service costs, and patient satisfaction levels compared to patients who received treatment exclusively from physicians.

In a separate systematic review of advanced practice nurses, Newhouse et al. (2011) found that advanced nurse practitioners in acute clinical settings were linked to decreased hospital stay durations and lower healthcare expenses. This conclusion was drawn from papers published over an 18-year span. Nevertheless, in a comprehensive analysis of the impact of care provided by nurses and physicians for patients with chronic illnesses, Martinez-Gonzalez et al. (2015) found that there were no substantial or significant disparities between the groups receiving different interventions. Additionally, only 40% of patients expressed a preference for nurse-led care. Our conclusion aligns with the results of our study, in which many studies (Dierick-van Daele et al., 2009; Kamps et al., 2003; Kinnersley et al., 2000; Munding et al., 2000) found insignificant outcomes in terms of clinical and service-related indicators of care quality.

3. Conclusion

According to this study, advanced nurse practitioners improve patient care, service cost-effectiveness, efficiency, and overall patient satisfaction with the quality of treatment. Research examining the effects of advanced nurse practitioners on clinical and service outcomes seems to be applicable to all healthcare settings, demonstrating the broad range of skills and abilities of this professional field in meeting the present and future healthcare requirements of patients and their families. Although the results are somewhat constrained by methodological difficulties in the trials, it is evident that advanced nurse practitioners provide a hopeful approach for tackling the increasing complexity and demand of health care consumers globally.

Without a doubt, ensuring the consistent provision of excellent healthcare to patients in the face of extraordinary challenges and stress is crucial for both the current and future safety of patients. While the majority of the research included in this review was carried out in wealthy nations, they provide compelling evidence that the beneficial and similar efficacy of advanced nurse practitioners may be investigated and used in low to middle-income countries. It is crucial to prioritize the use of advanced nurse practitioners in order to enhance healthcare outcomes on a global scale, particularly at the policy level.

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