



Advanced Nursing and Pharmaceutical Practices in The Multidisciplinary Management of Autoimmune Diseases: A Focus on Rheumatic Disorders

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Abstract

Background: Autoimmune diseases, particularly rheumatic disorders, present significant challenges due to their chronic nature, diverse symptoms, and impact on patients' quality of life. Recent advancements in rheumatology have highlighted the critical roles of nurses and pharmacists within multidisciplinary care models. This study explores the evolving contributions of these professionals in managing autoimmune diseases, focusing on their alignment with the 2018 EULAR guidelines for rheumatology care.

Methods: Using a systematic literature review, the study evaluates the integration of advanced practice nursing (APN) roles and the efficacy of pharmacist-led interventions in treating rheumatic disorders. The analysis incorporates patient education, psychological support, telehealth practices, and adherence to pharmacotherapy as essential components of care. Randomized clinical trials and qualitative studies were reviewed to compare nurse-led and physician-led patient follow-ups and examine patient satisfaction and clinical outcomes.

Results: Results indicate that APNs, with specialized rheumatology training, provide care comparable to that of physicians, significantly contributing to early diagnosis, symptom management, and patient empowerment. The findings underscore the necessity for continued education and role expansion for nurses and pharmacists in rheumatology. Advanced practice roles, when supported by clear statutory guidelines, facilitate comprehensive and patient-centered care, reducing hospital admissions and enhancing health outcomes.

Conclusion: Nurses and pharmacists play pivotal roles in the multidisciplinary care of autoimmune diseases. Expanding their competencies through education and policy adjustments is essential to improving patient outcomes and addressing the complex needs of individuals with chronic rheumatic disorders.

Keywords: Autoimmune diseases, rheumatology, advanced practice nursing, pharmacist interventions, multidisciplinary care.

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1. Introduction

The worldwide incidence of rheumatic disorders in adults varies between 0.24% and 1%, influenced by hereditary and environmental variables. Rheumatic disorders are a major contributor to chronic illnesses in children. Common outcomes include multiple organ issues, incapacity, and the inability to engage in social activities [1,2]. Public education initiatives, implemented in several countries, aim to enhance public knowledge of rheumatic disorders [3,4]. They have also facilitated early diagnosis and treatment. Conversely, recent advancements in the therapy of rheumatologic disorders and scientific research in immunology and genetics have enhanced the potential for optimum health outcomes for people with inflammatory joint disease.

The majority of individuals want to maintain a good quality of life despite chronic disease. This has led to a change in the health requirements of patients and their families, especially on the need for professional assistance and readiness for self-care. Consequently, novel care models, including creative organizational and instructional strategies for nurses, have become imperative [5].

The necessity for prolonged multispecialty care for chronically ill patients, particularly those with rheumatic disorders, has led to the emergence of a new nursing role, the Advanced Practice Nurse (APN), who possesses extensive expertise in a specific medical field and social sciences, along with enhanced clinical competencies in diagnosing, treating, and co-managing patients. The professional function of an Advanced Practice Nurse (APN) was first delineated in the United States throughout the 1970s. The International Council of Nurses defines an Advanced Practice Nurse (APN) as a nurse with the experience and capability to make autonomous judgments essential for advanced practice. APNs now amalgamate research, education, practice, and care management. They possess a significant degree of professional autonomy and sophisticated patient health evaluation capabilities. Furthermore, APNs autonomously design, execute, and assess health initiatives while offering consultative services to other organizations within the healthcare system [6].

Globally, substantial data demonstrates the beneficial effects of Advanced Practice Nurses (APNs) on patients, healthcare institutions, and the nursing profession. Numerous nations have initiated pilot projects to integrate the new function of the Advanced Practice Nurse (APN) into their national healthcare systems. These programs are always evolving to integrate more clinical skills and practical experience into nursing education. Introducing suitable rules is essential for enabling Advanced Practice Nurses (APNs) to operate within a multidisciplinary healthcare team alongside other stakeholders engaged in the treatment of chronically ill patients and their families [7-9].

The need and extent of multidisciplinary care delivered by nurses are dictated by the health issues faced by patients with rheumatic disorders. The application of EULAR guidelines in nursing practices for patients with rheumatic disorders relies on the specific training of rheumatology nurses [10]. The care of patients with rheumatic illnesses has significantly evolved in the last decade, emphasizing the prompt commencement of aggressive therapy and the meticulous monitoring of disease activity until remission is attained. In less prevalent connective tissue illnesses, marked by immunological dysfunction, vascular impairment, and alterations to many internal organs, patient therapy necessitates a holistic approach.

Given the extensive range of clinical manifestations that impact the quality of life for patients with rheumatic diseases, including connective tissue disorders, specialized nursing care is imperative. It offers a personalized approach to patients, instilling a sense of security and confidence regarding their condition.

Given the aforementioned statistics, the enhancement of services and competencies in rheumatology nursing has become imperative [11-16].

In 2018, the European League Against Rheumatism (EULAR), dedicated to enhancing the treatment and care of individuals with musculoskeletal disorders in Europe, reassessed its recommendations concerning the nurse's role in the management of patients with chronic arthritis, utilizing contemporary scientific evidence. This research aims to delineate the range of medical services offered by nurses to patients with rheumatic disorders in accordance with the current EULAR guidelines.

2. EULAR Guidelines for Nursing Professionals

A literature evaluation demonstrates the efficacy, safety, and accessibility of nursing care from the patient's viewpoint; this is corroborated by the fundamental principles for the recommendations established by the EULAR 2018 expert panel. Rheumatology nurses collaborate closely with patients and their families [17-22]. As constituents of an interdisciplinary healthcare team, they concentrate on delivering effective treatment that meets health requirements, values, and patient preferences. Nurses use several sources of information in their professional activity, including scientific data, procedures, recommendations, personal nursing experience, patient ambitions, and contextual factors. The amended EULAR 2018 guidelines primarily stress patient education by the nurse, including therapeutic elements and health promotion [23]. Numerous writers affirm the beneficial effects of nurse-led patient education initiatives in disease-related domains, including pain management, sickness perception, quality of life, and adherence to guidelines [22-25].

Patient satisfaction with nursing treatment was prioritized based on research information. Consultations with nurses have been shown to have a substantial, beneficial, and enduring (two years) impact on patient satisfaction [26]. Furthermore, it was revealed that patients value sustaining a professional connection with a nurse. Research highlighted the comprehensive and professional attitude of nurses in patient care, with patients' faith in nurses' expertise and a supportive type of reciprocal relationships [27-29].

The erratic characteristics of rheumatic disorders and emerging therapeutic alternatives sometimes need immediate access to healthcare. Simultaneously, we may use the novel communication methods, assistance, and illness monitoring facilitated by online consultations, enabling remote care [28]. The EULAR task force, in recommending expedited patient access to nursing care, concentrated on existing scientific evidence from qualitative studies wherein patients expressed that telehealth follow-ups and online consultations with nurses provided them with a sense of individualized support from a proficient healthcare team. The quality of this service was similar to that of a standard follow-up conducted by a physician to monitor disease activity [30,31].

Randomized clinical studies comparing nurse-led and physician-led patient follow-up demonstrated that the quality of disease activity control achieved by nursing care was comparable to that given by doctors. No substantial variations were seen in health functioning quality between patients overseen by a nurse and those watched by a physician. Nurses significantly contributed to the early identification of inflammatory alterations in joints through physical examinations that assessed pain, swelling, and skin warmth, as well as the interpretation of laboratory results, the continuation of pharmacotherapy, and the adherence to vaccination protocols [32]. Nursing care was either cost-neutral or somewhat less expensive than physician care; however, there was no indication of savings in the services provided. The panel of experts acknowledged the need of including nurses into the thorough care and monitoring of the condition.

The expert panel also recommended that nurses provide help to patients with psychosocial issues to alleviate feelings of anxiety and sadness and to encourage efficient functioning despite their illness [33-35]. The psychological stress encountered by patients with rheumatologic disorders has a known adverse effect on their physical symptoms and should be eradicated. Moreover, depression is a recognized comorbid illness necessitating appropriate therapy and meticulous management of the patient [36].

A study of rheumatology patients exhibiting depressive symptoms revealed that the quality of nurse-led therapy is comparable to that administered by a rheumatologist. Patients and their families valued the chance to engage in a comprehensive dialogue with a nurse, addressing several concerns impacting their mental well-being [24]. Consequently, recognizing the psychological issues of patients with rheumatologic disorders and providing assistance in this regard were identified as essential elements of nursing care. The concurrent advancement of self-management empowers patients and their families to acquire essential knowledge, skills, and confidence to address the physical and psychosocial ramifications of chronic illness, thereby enabling lifestyle modifications aligned with their preferences [29]. Studies have shown that nurse-led interventions may enhance patients' and/or families' self-efficacy in managing daily variations of the condition [37-39].

The final EULAR 2018 recommendations pertain to the ongoing education of nurses in rheumatology to enhance and sustain their knowledge and skills, as well as to pursue advanced roles after specialized training, in accordance with national regulations. The phrasing of these suggestions has not altered from prior recommendations [40]. The evidence supporting these guidelines has strengthened due to recent research indicating that training programs for rheumatology nurses enhanced their knowledge and abilities, leading to improved practices. Nurses who have undergone specialized training may do some duties typically executed by physicians and physiotherapists, including joint assessment, recognition of signs and symptoms in rheumatic disorders, and differentiation of anomalies. Rheumatology nursing is not universally recognized as a formal specialty in all countries. The education of nurses in rheumatology is essential for fostering effective and comprehensive treatment for patients of all ages with rheumatological conditions.

3. Responsibilities of Nurses in the Management of Patients with Rheumatic Diseases

The EULAR 2018 guidelines for rheumatology nurses and the research review underscore the need to enhance nurses' expertise and proficiency in specific clinical skills, pedagogical and psychological education, and work organization [41,42]. Advanced Practice Nurses (APNs) significantly contribute to patient diagnostic and treatment processes. The significance of their communication abilities in recognizing patients' psychosocial issues and assisting patients and their families in making therapy choices is increasingly acknowledged. Person-centered care and collaboration with patients are crucial aspects of APNs' roles that encourage patient self-care. The effective planning of nursing care is crucial to mitigate the danger of excessive workload that might diminish service quality [43,44].

EULAR guidelines indicate that Advanced Practice Nurses (APNs) may autonomously provide excellent follow-up care for patients with chronic rheumatoid arthritis, managing relapse risk factors and facilitating early problem diagnosis. Patients assert that nursing care may elevate their quality of life and augment satisfaction with medical treatments by means of extended and comprehensive consultations [40]. From a healthcare system standpoint, nurse-delivered care may decrease hospital admissions, cut care costs, and enhance team coordination. Patients prioritize the proficiency of nurses, particularly Advanced Practice Nurses (APNs), whereas confidence in the family physician is the paramount element affecting the assessment of the significance of care delivered by nurses [45]. Patient views provide valuable information about the integration of Advanced Practice Nurses into the healthcare system. It augments nurses' self-efficacy, leading to enhanced nursing services and superior quality of care [46,47]. In conclusion, it is essential to recognize that all medical services are delineated by certain healthcare systems. Irrespective of formal circumstances, a clear delineation of the duties and responsibilities of certain professional groups should enhance the quality of healthcare delivered. This aims to provide timely diagnosis and efficient, safe treatment while considering the chronic disease's influence on the patient's functioning and immediate surroundings (Figure 1).

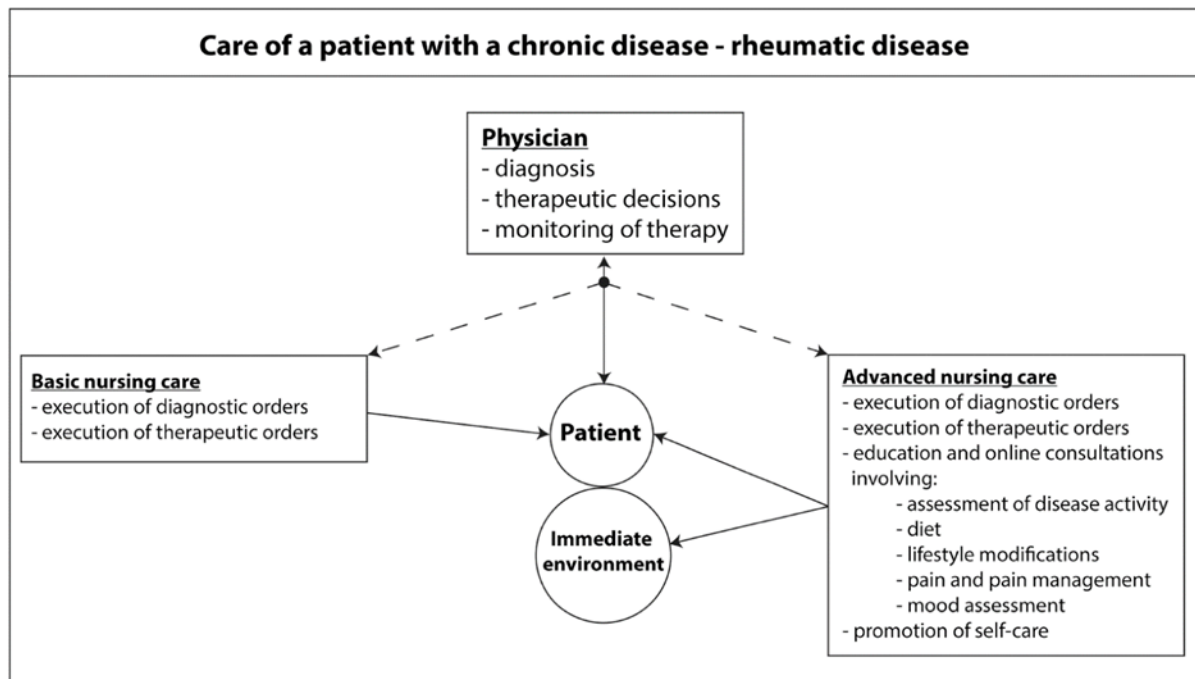


Figure 1. Management of a patient with a persistent rheumatic condition.

4. Conclusions

The findings of our research, particularly the EULAR guidelines, lead us to conclude that the education of nurses in rheumatology is essential for cultivating advanced nursing competences pertinent to patient care. The availability of professional nursing care for patients and their families enhances self-management and improves satisfaction with care in rheumatic illnesses. Membership in a multidisciplinary healthcare team for the management of patients with rheumatic disorders requires that the nurse have competencies equivalent to those of an advanced practice nurse. To create and execute the function of the advanced practice nurse, it is essential to establish explicit statutory rules and to enforce standards including both education and the entire delivery of medical services.

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الممارسات التمريضية والصيدلانية المتقدمة في الإدارة متعددة التخصصات للأمراض المناعية الذاتية: التركيز على اضطرابات الروماتيزم

الملخص

الخلفية: تشكل الأمراض المناعية الذاتية، وخاصة اضطرابات الروماتيزم، تحديات كبيرة بسبب طبيعتها المزمنة وأعراضها المتنوعة وتأثيرها على جودة حياة المرضى. وقد أبرزت التطورات الحديثة في مجال الروماتيزم الأدوار الحيوية التي يقوم بها الممرضون والصيدالدة ضمن نماذج الرعاية متعددة التخصصات. تستكشف هذه الدراسة المساهمات المتطورة لهؤلاء المهنيين في إدارة الأمراض المناعية الذاتية، مع التركيز على توافقهم مع إرشادات EULAR لعام 2018 لرعاية الروماتيزم.

الطرق: تعتمد الدراسة على مراجعة منهجية للأدبيات لتقييم دمج أدوار التمريض المتقدمة (APN) وفعالية التدخلات التي يقودها الصيدالدة في علاج اضطرابات الروماتيزم. تتضمن التحليلات عناصر أساسية مثل تعليم المرضى، الدعم النفسي، ممارسات الرعاية الصحية عن بُعد، والالتزام بالعلاج الدوائي. تم مراجعة التجارب السريرية العشوائية والدراسات النوعية لمقارنة المتابعة التي يقودها الممرضون بتلك التي يقودها الأطباء، وكذلك فحص رضا المرضى والنتائج السريرية.

النتائج: تشير النتائج إلى أن الممرضين ذوي التدريب المتخصص في الروماتيزم يقدمون رعاية مكافئة لتلك التي يقدمها الأطباء، حيث يساهمون بشكل كبير في التشخيص المبكر وإدارة الأعراض وتمكين المرضى. كما أكدت النتائج على أهمية التعليم المستمر وتوسيع الأدوار للممرضين والصيدالدة في مجال الروماتيزم. تُمكن الأدوار المتقدمة، عند دعمها بإرشادات تنظيمية واضحة، من تقديم رعاية شاملة تركز على المريض، مما يقلل من دخول المستشفيات ويحسن النتائج الصحية.

الخلاصة: يلعب الممرضون والصيدالدة أدوارًا محورية في الرعاية متعددة التخصصات للأمراض المناعية الذاتية. ويُعد توسيع مهاراتهم من خلال التعليم وتعديل السياسات أمرًا ضروريًا لتحسين نتائج المرضى وتلبية الاحتياجات المعقدة للأفراد الذين يعانون من اضطرابات الروماتيزم المزمنة.

الكلمات المفتاحية: الأمراض المناعية الذاتية، الروماتيزم، التمريض المتقدم، تدخلات الصيدالدة، الرعاية متعددة التخصصات.