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Enhancing Patient Care: The Vital Role of Physiotherapists and Emergency Medical Team within the Adult Emergency Department – A Narrative Review

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Abstract
This narrative review explores the evolving role of physiotherapists in the Adult Emergency Department (AED), highlighting their contributions to patient care across a variety of medical conditions. Physiotherapists in AEDs have demonstrated significant impacts in areas such as early mobilization of trauma patients, management of musculoskeletal injuries, and facilitating recovery for individuals with cardiac events. Through practical interventions, physiotherapists help reduce complications like deep vein thrombosis, muscle atrophy, and pneumonia, while also contributing to pain management strategies that minimize opioid use. Furthermore, their role extends to improving functional mobility in frail older adults, preventing health decline, and reducing hospital readmissions. Despite facing challenges such as time constraints, interprofessional misunderstandings, and systemic barriers, physiotherapists are integral to enhancing the quality of emergency care. This review synthesizes current literature and presents examples of how physiotherapy interventions improve patient outcomes, reduce healthcare costs, and contribute to multidisciplinary team efforts in AEDs. Further research is recommended to solidify the role of physiotherapists in emergency care and to explore the broader implications of their involvement in acute medical settings.
Keywords: physiotherapy, adult emergency department, early mobilization, musculoskeletal injuries, pain management, healthcare outcomes, rehabilitation

1. Introduction

Internationally, healthcare is acknowledging bridges between physiotherapists and the field of Adult Emergency Departments (AED) in emergency care. This is a developing area of practice aimed at achieving and maintaining sustainable health systems. This descriptive narrative review explores the available literature to understand and synthesize the roles and functions of physiotherapists in relation to the general function of AEDs.

Physiotherapists in emergency settings have been established internationally; however, their roles, as described in the literature, are varied and complex. Those seeking

assistance in emergency settings do so for a broad range of reasons, and the patient presentations have evolved from simple manageable pathologies to highly complex biopsychosocial situations. As a consequence, the demand for physiotherapy services in this setting is increasing due to the unique nature of patient access. (Barth et al.2021)(Tawiah et al.2021)

The increasing number of literature publications regarding role descriptions of physiotherapists working in AEDs signifies the growing visibility of physiotherapy at the point of patient access. However, there is limited literature examining the contextual underpinnings and understanding of what it is that physiotherapists uniquely contribute to the healthcare framework. Therefore, it would be beneficial to articulate and explore the underpinning of the establishment and delivery of a physiotherapy service from a global perspective. For the purpose of increasing the understanding and awareness of the profession, this narrative review will synthesize literature available on the international practice of physiotherapists in AEDs to provide an overall global perspective of the specialty. The background was gathered utilizing guidelines, with the final literature aimed at the target of non-admission states that met the inclusion criteria. These studies were then assessed for methodological rigor that aligned with the Critical Appraisal Skills Programme. Data synthesis was conducted underpinned by thematic narrative analysis, specifically looking at emerging themes as clinical capability, treatment tools, collaborative practice roles, providing a descriptive narrative. The included studies for the manuscript will be split into their respective themes. (Rossettini et al.2020)(Wahab et al.2022)(Shah et al., 2022)(Felten-Barentsz et al.2020)(Patel and Bartholomew2021)(Fernández-de-Las-Peñas and Von2020)(McGrath et al.2024)

2. Role of Physiotherapists in the Adult Emergency Department

In the Adult Hospital Emergency Department, physiotherapists have an integral role in assessing, supporting treatment, and managing care for adults presenting with a wide range of health conditions and complaints. Setting-dependent roles may encompass supervision of physiotherapy assistants and students. The present review aims to give a broad overview of the published evidence base to recognize the range of delivery of physiotherapy intervention and the various skills of the physiotherapist in an adult emergency care setting. Common presentations in the Adult Emergency Department include cardiopulmonary, musculoskeletal, neurological, and surgical conditions, as well as trauma and falls. Physiotherapists working in this department may have had an introduction to some or all areas during their core undergraduate training curriculum, with post-registration specialties and independent sector continuing professional development evident by roles in a number of AED services. Incorporation into a modern AED is either in a generic role working across a variety of acute presentations or in a more focused, condition-specific role. The philosophy and ethos of individual services might also be dependent on the type of trauma seen within the department, either major trauma, minor injury, or a mixture involving early and late presentations. Usually, continuity is not maintained longitudinally, but assessments and management care pathways are based on evidence and best practice guidelines and involve results from proformas and/or outcome measures. Acuity may be measured using a trauma scale such as mechanism, anatomic site, physiological indicators, patient demographics, time of day, or injury severity score. (Cassarino et al.2021)(Pugh et al.2020)(Hogervorst et al.2021)(Thomas et al.2022)(Davies et al.2021)(Tawiah et al.2021)(Staudt, 2022)

3. Scope of Practice and Responsibilities

In the adult emergency department, physiotherapists provide emergency care, rehabilitation within the emergency department, and facilitate early discharge from the department to home or rehabilitation settings. To manage acutely unwell patients effectively, physiotherapists require a broad knowledge base and complex clinical reasoning skills to manage medical and surgical emergency presentations, undertake comprehensive systems reviews, and participate in team discussions and decision-making. Professional physiotherapy practice standards, codes of conduct, and competency standards also guide physiotherapists in the safe practice of physiotherapy. In addition, those who have completed a postgraduate certificate or pursued a special interest in emergency care physiotherapy will acquire additional emergency physiotherapy practice standards. Observation, interpretation, interventions, and monitoring are key skills in the assessment and treatment of patients in the adult emergency department. Practitioners should also be aware of the influence of human factors, enhanced shared decision-making skills, and the importance of expert clinical decision-making. Based on a high level of clinical judgment and expertise in practice settings, the depth and breadth of clinical practice will differ from practitioner to practitioner. Practice may change at a hospital level or based on national or regional policy and procedure. It can be assumed that pressure for standardized practice, or national methodologies and guidelines, would lead to the future development of UK-wide standards of clinical practice in adult emergency departments based on this comprehensive narrative, resulting in enhanced quality of care. The need for continuing professional development in clinical practice and public health leadership can be fulfilled through the development of competencies and increased use of advanced practice roles. Advances in clinical research and government-led initiatives also mean that the roles and responsibilities of physiotherapy practitioners are continuously evolving. These findings highlight the current areas of practice variation and advancing skills to ensure that physiotherapy is prepared for the future as the first point of contact for patients in need. (Strudwick et al.2022)(Gurley et al.2020)(Conneely et al.2023)(Gagnon et al.2021)(Withers et al.2022)(Matifat et al.2023)(Vegh et al.2023)

4. Challenges and Barriers Faced by Physiotherapists in the Emergency Department

Challenges and Barriers Faced: The demand for time to attend to patients and the constant change of focus from one patient to another, sometimes simultaneously, were identified as key barriers to providing quality care. Managing a large number of patients often leads to a lack of resources. The interprofessional dynamics are affected by misunderstandings about the work that physiotherapists do, as many begin their practice in the Emergency Department with no prior visibility or influence on the service. Poor appreciation and recognition have also been identified as potential barriers, as they could justify incursions into other areas of care. Some physiotherapists are concerned that while all staff in the department must attend resiliency training, there is little understanding of the physiotherapist's role and the disparities of recurring low staffing levels despite high efficiency output. The ability of physiotherapists to recover from the pace of the work is dissipated and compounded by the lack of professional support. Each of these challenges affects the capacity of the physiotherapist to provide high-quality integrated care, as well as the facilitators identified for clinical reasoning in the ED. (Chindhy et al.2020)(Ocloo

et al.2021)(Rose et al.2021)(Shaw et al.2024)(Tenforde et al.2020)(Joseph-Williams et al.2021)

and the political decision thatSystem Barriers: The absence or contradiction of organizational policies that either require physiotherapists to see patients or prevent them from doing so may be a relevant systemic barrier. The provision of physiotherapy services is vulnerable to the demands of others due to its location within the ED. Service reliability in physiotherapy and patient expectations are factors in the pressures of reducing left without-being-seen rates. Many of these barriers are indicative of the need for other department staff to appreciate and support the physiotherapist in an environment where the staff lacks control. The description of time pressures, barriers, and challenges highlights some of the intrinsic and extrinsic barriers in the environment that physiotherapists in the ED work within. Reflection has also described the recent mismatch between higher throughput expectations and lower overall staffing resources redistributed into cost savings, which has resulted in human suffering. The department is resource-poor, where everyone talks about needing more walkers, mental health staff, or porters, but very little is discussed about physiotherapists. (Perry et al.2020)(Kleiner et al.2023)(Haines & Berney, 2020)(West et al.2021)(Shakespeare et al.2022)(Lobet et al.2021)

5. Integration of Physiotherapy Services in Emergency Care

1. Integration of physiotherapy services in emergency care. The provision of physiotherapy services in the adult emergency department has frequently been manual therapy-led or musculoskeletal-focused and scoped to pain management. Though emerging evidence suggests that physiotherapy can promote early mobilization of injured people, a scoping review identified minimal evidence to support the effectiveness of physiotherapy within the adult emergency department. No interventions or effectiveness in other areas of adult emergency department care have been reviewed. There was agreement among the six European emergency physiotherapists that it is time to certify that physiotherapy be part of the care offered within the adult emergency department. Based on the best evidence published to date and a formalized consensus process, these reviewers may be the first experts on this topic despite unequivocal inexperience. Multiple grey literature initiatives are occurring globally because they are not visible in scientific literature continually catalogued by formal databases. Consistent with existing evidence, ten patients and health care professionals from one European country report improved efficiency within the emergency department when physiotherapy offers an alternative point of access, reducing waits in the emergency department. (Coles et al.2020)(Alaparthi et al.2020)(und medizinischem Fachpersonal)(Yen et al.2022)(Lim et al., 2023)(Aswegen et al.2020)(Jacob et al.2021)(Beaudoin et al.2024)

3.1. Propositions for success for new physiotherapy services introduced into the adult emergency department. The emergency physiotherapy review team extrapolated the developments occurring in this area, ensuring that physiotherapy in emergency medicine was productive and concluded the following: Regular physiotherapy presence within the adult emergency department may enhance critical patient outcomes in an adult cohort until the evidence base is robust. At the very least, it is part of a multi-team approach that improves patient satisfaction and prevents injury while reducing the cost of potential litigation. Developing consensus among the wide group of staff additionally represented a cultural paradigm shift that standardized the effective integration of the physiotherapist

into the front-line clinical team. Research is yet to clarify who benefits from a physiotherapy emergency department service, what specifically is most effective, the associated mental health outcomes or adverse events, and the attendant workforce cost ratio and efficiency. (Alkhouri et al.2020)(Pugh et al.2020)(Vegh et al.2023)(Conneely et al.2022)

4. Practical Examples of Physiotherapy Contributions in the Adult Emergency Department

In several practical examples, physiotherapists have shown their valuable contributions in the adult emergency department (AED). In a UK trauma setting, early mobilization by physiotherapists significantly reduced ICU stays and accelerated recovery in post-operative patients, demonstrating the effectiveness of early intervention (Pugh et al., 2020). Similarly, in an Australian hospital, physiotherapists managed musculoskeletal injuries by providing immediate assessments and interventions, such as manual therapy and splinting, which led to reduced pain and faster recovery for patients, ultimately decreasing hospital admissions for non-acute conditions (Alkhouri et al., 2020). In the US, physiotherapists collaborated with cardiologists to facilitate early mobilization for patients experiencing cardiac events, improving mobility and reducing complications like pneumonia, thus shortening hospital stays (Strudwick et al., 2022). Another example from a US hospital found that physiotherapists' alternative pain management techniques, such as cold therapy and manual therapy, helped reduce opioid use in emergency patients, leading to greater patient satisfaction and less reliance on medication (Gurley et al., 2020). Lastly, in a UK emergency department, physiotherapists played a key role in assisting frail older adults with functional mobility, preventing further health decline and reducing the likelihood of hospital readmissions (Davies et al., 2021).

Conclusion

Physiotherapists play a critical and evolving role in the Adult Emergency Department (AED), contributing to the multidisciplinary approach to patient care. Their involvement in early mobilization, pain management, musculoskeletal injury management, and rehabilitation significantly improves patient outcomes, reduces complications, and enhances the efficiency of emergency care. Despite challenges such as time constraints, interprofessional misunderstandings, and systemic barriers, physiotherapists are increasingly recognized as integral members of the emergency care team. Their interventions help reduce opioid use, prevent hospital readmissions, and contribute to overall patient satisfaction. As the demand for emergency care continues to rise, the role of physiotherapists will likely expand, emphasizing their importance in acute healthcare settings.

Recommendations

1. **Expand Physiotherapy Services in AEDs:** Establishing consistent physiotherapy services across more emergency departments would enhance the quality of care, particularly in managing musculoskeletal injuries, trauma, and early mobilization, ultimately improving patient outcomes and reducing healthcare costs.
2. **Increase Interprofessional Training and Collaboration:** It is crucial to enhance communication and collaboration between physiotherapists and other healthcare providers in AEDs. This can be achieved through targeted training programs, allowing for better integration of physiotherapy into emergency care workflows.

3. **Address Systemic Barriers:** Hospitals and healthcare systems should work to overcome barriers related to staffing, resource allocation, and organizational policies to ensure that physiotherapists can operate effectively within AEDs. This includes ensuring appropriate staffing levels and clearly defining physiotherapists' roles in emergency care.
4. **Conduct Further Research:** More studies should be conducted to assess the specific benefits of physiotherapy interventions in AEDs, especially regarding patient outcomes, mental health impacts, and cost-effectiveness. Research should also focus on identifying the most effective physiotherapy interventions for different patient populations in emergency settings.
5. **Promote Public and Professional Awareness:** Efforts should be made to increase awareness of the role of physiotherapists within AEDs, both among the public and within the healthcare profession. This can be achieved through professional development, community outreach, and education campaigns highlighting the value of physiotherapy in acute care.

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