



DESCRIBING PHYSIOTHERAPY INTERVENTIONS IN AN EMERGENCY DEPARTMENT SETTING: AN OBSERVATIONAL PILOT STUDY

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ABSTRACT

Physiotherapy intervention in the emergency department has been subject to most discussions raising the need to determine the relevance of including physiotherapists in the multidisciplinary team. A study carried out on 120 patients was used to establish the role played by physiotherapists in the emergency department. A qualitative approach to research was employed and it was clear that physiotherapists are an important part of the emergency department. For instance, the results showed that physiotherapists were at the center of issues like pain management, a decrease in mobility, planning patient discharge, and a reduction in the range of motion. Therefore, the pilot study opened up room for further research into the importance of including physiotherapy discipline in the emergency department and multidisciplinary management.

KEYWORDS : Physiotherapy, Intervention, Multidisciplinary, Emergency department

INTRODUCTION

Emergency departments are usually seen to be chaotic and busy places where critically sick patients are attended to subjecting other patients to a long waiting time before they get attention from hospital staff (Anaf and Lorraine). Thus, such environments need a multidisciplinary team where every profession contributes to the smooth running of emergency department activities (Smith and Shauna). A recent analysis has shown that physiotherapists in Australia have joined the multidisciplinary team where they work closely with nurses and medical staff to deliver services to the patients (Kempson). The move aligns with the greatest provision of the scope of practice among physiotherapists who by definition is considered a clinical specialist in a recognized specialty working beyond the currently recognized scope of practice (Taylor et al.). The definition is not limited to the professional presence in the emergency department but recognizes other clinical privileges. An example involves the capacity to order resonance imaging while managing acute orthopaedic conditions (Richardson et al.). The current study aims at describing the physiotherapy intervention for patients in the emergency department in India through an outline of the key clinical features seen among the patients. The paper aims at describing the types of clinical features that need the intervention of a physiotherapist and management techniques raising the need to employ a pilot study.

OBJECTIVE

The main objective of the pilot study is to determine the role of physiotherapists in an emergency department.

Literature Review

Tertiary care hospitals are the main referral centres for victims of mass casualty and trauma and fall under the management of specialists from various disciplines. The casualty areas have been replaced by the Emergency Medicine Department (EMDs) that are believed to be well equipped in confronting the crisis. Most critical events are unique such that every hospital has unique approach to handling emergency cases. The casualty areas are designed in such a way that various specialists are needed thus the need to study the significance

of physiotherapists in EMDs. The emergency medicine departments comprise of staff members with ability to manage mass casualty incidences and disaster. Literature has not provided a wide analysis of the new physiotherapy role and its implementation.

There is a need for a new member to be added to the nursing and medical team and the multidisciplinary team concept in the ED (Moss et al.). The traditional professions in the emergency department have a good contextualization of the clinical significance of physiotherapy practice in the emergency department (Kilner). Some studies have shown that the concept of multidisciplinary emergency department teams within which there needs to incorporate the physiotherapy practice is one of the largely implemented and growing emergency department services in regions like Australia (Taylor and Peter).

Past studies have highlighted the significance of physiotherapists in the emergency department for named conditions like musculoskeletal conditions (Walker et al.). A general conclusion on this assessment is that the incorporation of physiotherapy practice in the emergency department will have positive outcomes (Morris and Hawes). The process is not oriented towards the attraction of physiotherapy clients to the emergency department for treatment but is to be seen as a new way of promoting collaboration among the emergency department staff (Ball, Kate, and Stephen). The resolution will also promote the easy management of patients while ensuring physiotherapists attend to particular patients in the emergency department who need physiotherapy-related management.

There is a high demand for substantiating clinical practice with research particularly concerning the paucity of current literature. An important contribution to the body of literature may involve offering a definition of the scope of physiotherapy practice in the emergency department (Jibuike et al.).

METHODOLOGY

The pilot study constituted a collection of two key data

processes namely observation of the professional in the ED to describe their role and second was to determine the clinical features and demographics of patients attended to by the physiotherapists in the emergency department. There was a need for ethical approval which was taken from the division of ethics. A principle researcher located at the emergency department observed the physiotherapists while recording key data points and then documented features of the patients attended to by the physiotherapist.

The emergency department selected for the study was a trauma center. Data collection was agreed upon by both the researcher and the participants including patients and the physiotherapists. Convenience sampling was employed in recruiting the emergency department physiotherapists who were asked about their availability via mail and phone call. The physiotherapists were also informed of the nature of the research where they were going to be observed and notes taken down regarding features of the patient they interacted with and the nature of the intervention the physiotherapist provided.

The patients used in the pilot study were required to give an informed consent that they were aware of and agreed to be participants in the study and were to be deemed appropriate and in need of services of a physiotherapist. Patients that were below the age of 18 years were not included in the study leaving the researcher with a sample size of 120 patients. The main information that was recorded includes patient demographics like age and gender and information regarding physiotherapy subjective examination such as the nature of the patient's condition and the reason they needed the intervention of a physiotherapist.

Another set of information included was the detail regarding the objectives of making physiotherapy intervention such as physical assessments that were carried out and the provisional clinical diagnosis. The researcher also took notes on the interventions like specific details of the treatment that was given to the patient and determine if there was a need for admission, referral, or discharge. The data collection protocol involved carrying out subjective assessments while systematically recording observations on the data collection sheet.

Data collected was analysed in two distinct stages where the demographics of the participants were analysed in Microsoft excel where the descriptive report was generated. A systematic analysis was then conducted for the recorded observations looking for critical themes and features that fit within the qualitative data dynamics. The themes were then used in conjunction with demographic data to create the link between participant features and physiotherapy interventions. The analysis did not focus on the clinical efficiency of the physiotherapy interventions but rather to illustrate the role of the physiotherapists in the emergency department.

RESULTS

The results of the pilot study are as follows:

Table 1: The Cause Of The Complaint

Cause Of The Complain	Number Of Participants
accident	30
debilitation	31
pre-existing condition	10
Infection	21
Falls	22
others	6
total	120

Table 2: Classification Of The Injury

Condition Classification	Participants
general medical	27
musculoskeletal	42
neurological	31
orthopedic	20
Total	120

The results from the first table indicate that accidents and debilitation are among the main causes of complaints that the patients shared within the emergency department. The second table shows that musculoskeletal injuries were a major condition that the participants experienced raising the need to understand the nature of complaints and come up with a conclusion on the role of physiotherapists in the emergency department. The following chart is used to illustrate the significance of accidents and musculoskeletal injuries in understanding the role of physiotherapists in the emergency department.

Graph of classification of injury

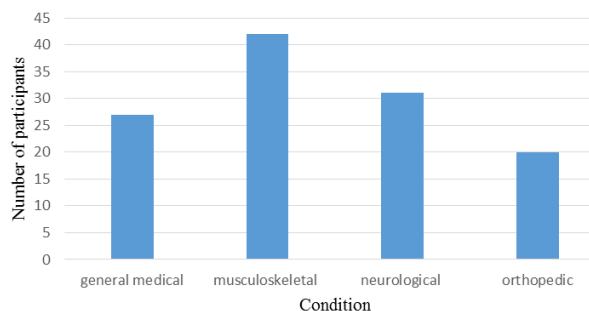


Fig 1: Graph Of Classification Of The Injury

Graph of cause of complain

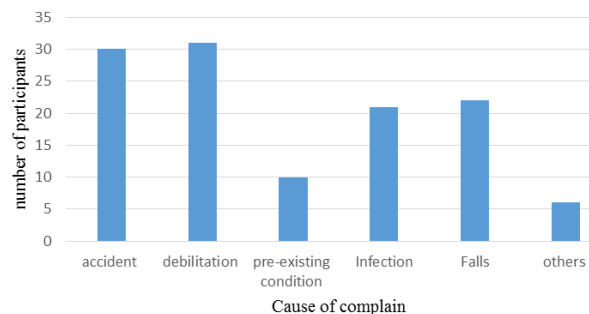


Fig 2: Chart Representing Cause Of Complain

The documented observations were analysed revealing features and themes among participants that required the intervention of a physiotherapist. The main features recorded from their responses included a reduction in the range of motion, reduction in mobility, pain, and planning requirements for discharge. The features are much related to injury illustrating that the need for physiotherapist intervention was related to the injury. Chronic and spontaneous pains were significant factors in the need for physiotherapist intervention.

The emergency physiotherapists employed various skills when managing pain including employing wound support techniques and the use of sling to reduce joint movement. The physiotherapists also provided education regarding the best way to transfer the patients without causing them pain. Accurate pharmacological management of pain was also achieved through the close proximity of other medical staff. The decrease in mobility was addressed through mobility assessment such as using crutches.

Reduced range of motion was caused by tissue damage that

usually features among people with a musculoskeletal condition. The physiotherapists also confirmed that they employ chest physiotherapy in clearing secretion thus improving lung volume by employing techniques by the patient or the physiotherapist. Techniques that can be performed passively include percussion, chest vibration, chest compression, suctioning, nebulization, intercostal muscle stretching, and postural drainage technique.

The physiotherapist recommended home exercise that would improve the joint range of motion and the number of exercises that the patients should undergo and making arrangements for future physiotherapy follow-up. The patients are taught the way to perform deep breathing exercise like apical breathing, mobility exercise, and breathing exercise. The patients are also taught techniques like autogenic drainage, huffing, and active cycle breathing technique (ACBT). The physiotherapy also played a significant role in meeting the discharge planning needs as they had to liaise with other members of hospital staff in ED in ensuring discharge requirements of the patients were met.

DISCUSSION

Physiotherapist plays an important role in the emergency department where they address symptoms related to some conditions after which they ensure the patients are safe to leave (McClellan and Jonathan). The role of physiotherapists in ED is multi-faceted with the primary goal of lowering the number of hospital admissions using provisions of multidisciplinary management. The pilot study revealed that most patients that require physiotherapy interventions have musculoskeletal injuries the study has shown that physiotherapists play an important role in the emergency department thus the need to recognize this discipline in multidisciplinary team management across various emergency departments and healthcare institutions.

CONCLUSION

The conclusion from the pilot study is that physiotherapists within emergency departments play a crucial role in assisting with pain management and reducing mobility and joint motion. Adopting physiotherapy within ED multidisciplinary team will have a major influence on patient management and reduce the number of admissions to the hospital.

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