

Knowledge Attitude and Behaviour among Physiotherapists in Early Mobilization of Patient in Intensive Care Unit

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ABSTRACT

Objectives: The aim of this study was to investigate the knowledge, attitude and behavior regarding the benefits of early mobilization and to identify perceived barriers to delivery of mobility of physiotherapy in the ICU.

Methods: 120 physiotherapists were included using convenient sampling working in ICU from Ahmedabad. Questionnaire for knowledge, attitude, and behavior among physiotherapists. The questionnaire was electronically distributed among physiotherapists. The data collected was analyzed by using MS Excel 2010.

Result: There were 85%(n=102) response rate. Proportion of poor, fair and good knowledge towards EM in ICU were 3%, 31% & 56% respectively, while negative, fair and positive attitude were 17%, 28% & 55% respectively, and that of negative, fair and good behavior were 10%, 16% & 74% respectively among Physiotherapists.

Conclusion: There was average knowledge, attitude, and behaviour among physiotherapists in early mobilization of patients in ICU. During the study we also found that majority of physiotherapist weren't confident with the use of vasoactive drugs and the consumption of time in mobilizing the patients were barriers during EM.

Keywords: Early mobilization, ICU, Physiotherapists

INTRODUCTION

Patients who are critically ill are frequently placed on bed rest, and in the intensive care unit (ICU), therapies aimed at restoring acute organ function are usually given priority over efforts to maintain physical and mental function.^[1] Prolonged immobilization is independently associated with serious complications such as pressure ulcers, pneumonia, deep vein thrombosis, delirium, and ICU-acquired weakness.^[2]

Early mobilization was found to improve physical and cognitive functions, decrease mechanical ventilation time, ICU and total hospital stay and overall healthcare cost.^[3]

In spite of knowledge of potential benefits, effective EM is not widely performed in critically ill patients on MV and so is out-of-bed mobilization.^[4] Previous studies documented that only 37% and 24% of ICU patients had bedside mobilization.

^[5]Commonly reported perceived barriers to early mobilization in ICU were lack of mobilization protocol, inadequate training and knowledge and negative attitude and culture among ICU therapists.^[6] There is a paucity of the literature about knowledge, attitudes, and perceived barriers of physiotherapists toward EM in the Indian scenario; hence, this was the rationale for carrying out the present study in

physiotherapist.^[4] Professionals may also be worried about actual or perceived unfavorable outcomes from changing positions. Inadequate research has led to a lack of protocols guiding the use of body position and/or mobilization, as factors that influence or restrict the choice of body position during critical illness.^[11] The aim of this study was to investigate whether physiotherapists in the medical intensive care unit are knowledgeable regarding the benefits of early mobilization & to identify attitude as well as behavior of physiotherapists in intensive care unit. The objective of the study was to assess physiotherapists knowledge, attitude, and behavior towards patients in early mobilization in ICUs.

RESULT

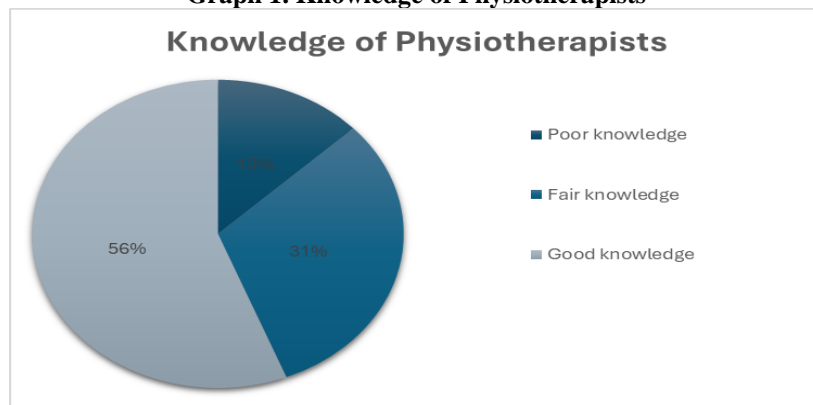
MATERIALS & METHODS

An observational study among 120 physiotherapists was conducted in Ahmedabad city, the study included hospitals and clinics associated with ICU. The study took 1 month of duration. Physiotherapists (Bachelors, master's or PhD) of Ahmedabad, physiotherapists visiting and consulting in Intensive Care Unit (ICU) were included. Physiotherapy clinics which are not associated with hospitals were excluded in the study.

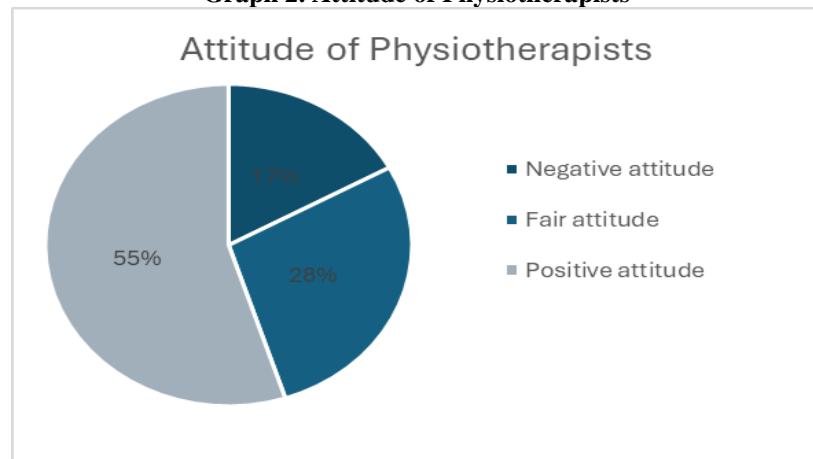
STATISTICAL ANALYSIS

An 8 questions questionnaire was electronically was passed in form of Google form, where there were 3 knowledge-based, 4 attitude-based and 1 question regarding behavior. Responses were indicated on a 5-point Likert scale and reported as proportion of respondents agreeing or disagreeing. The result was then analyzed on MS Excel 2010.

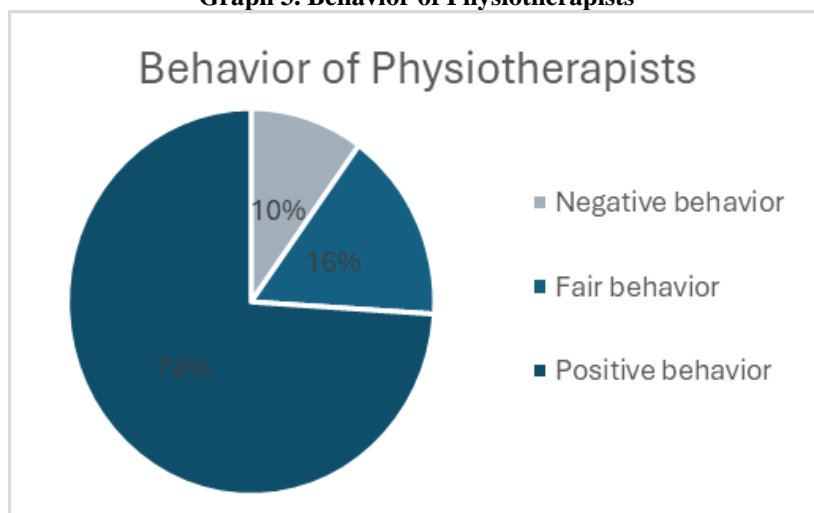
Graph 1. Knowledge of Physiotherapists



Graph 2. Attitude of Physiotherapists



Graph 3. Behavior of Physiotherapists



The response rate to questionnaire administration was 85%. A total of 102 physiotherapists visiting and consulting in ICU completed the questionnaire; of them, the responses received are as follows: Proportion of poor, fair and good knowledge towards EM in ICU were 3%, 31% & 56% respectively, while negative, fair, and positive attitude were 17%, 28% & 55% respectively, and that of negative, fair and good behavior was 10%, 16% & 74% respectively among Physiotherapists.

DISCUSSION

Severe muscle weakness is a typical side effect of profound sedation, hyper catabolism, and immobility in critically ill patients. Muscle weakness reduces functional ability, causes a delay in recovery, makes it difficult to wean off MV, raises expenses, and lowers survivors' quality of life. Many clinical scales and dynamometry methods have been developed by researchers to reliably measure muscle force in the ICU.^[7]

Karen K.Y. Koo et al (2006) Concluded that Excessive sedation, medical instability, limited staffing, safety concerns, insufficient guidelines and insufficient equipment were common perceived barriers to early mobilization.^[1]

Tasew Kalemnu et al (2023) Concluded that, there were significant proportion of clinicians who had poor knowledge and

negative attitude. They suggested that clinicians and physiotherapists actively participate in critical care units.^[6]

Akhtar Priyanka et al Stated that there exists an awareness of the benefits of EM and favorable attitudes to its application. However, the actual performance of EM was perceived as a challenge due to barriers identified in the study.^[4]

Under the direction of treating professionals, coordination and cooperation between the physical therapy and nursing staff may improve the overall use of EM. Additionally, it is recommended to talk about the viability of EM involvement into routine care and develop algorithms to lower the perceived work stress related to mobility.^[8]

Zomorodi M et al (2012) in a study concluded that beyond the notable physiological alterations linked to restricted exercise, a study found that their pilot study highlights the interdisciplinary role required to create an effective nursing practice. Future work should focus on the outcomes of implementing a mobility protocol in the intensive care environment, as patients may avoid the detrimental sequelae of an intensive care environment.^[9]

The optimal ICU care team and EM delivery systems must be established in the form of recognized protocols, which must be supported by data showing the unquestionable advantages of EM over

other risks. In order to refine the above task, more targeted surveys of attitudes and behaviors are needed that may influence implementation and adherence to EM programs [10]. Improving physicians' and paramedics' knowledge of the safety, appropriateness, and promotion of EM for critically sick patients will aid in increasing the adoption of EM in these patients.

Thus, in our study we found that maximum number of physiotherapists agreed to starting of early mobilization to maintain muscle properties to mechanically ventilated patients and faster weaning off mechanical ventilation. The physiotherapists believed that limited staffing, safety concerns, inadequate training of staff and consumption of time to facilitate EM were point of concerns in Intensive Care Units. Education regarding appropriateness, safety, and promotion of EM of critically ill patients among physiotherapists will help in improving the acceptance of EM in critically ill patients.

CONCLUSION

There was an average knowledge, attitude and behavior among physiotherapists. Therefore, we recommend active engagement of physiotherapists in ICUs. During the study we found that majority of physiotherapist weren't confident with the use if vasoactive drugs and the consumption of time in mobilizing the patients were barriers during EM. We also urge physiotherapists to have self-learning habits and hospital administrators to prepare regular training and courses related to early mobilization in ICU.

Declaration by Authors

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Conflict of Interest: The authors declare no conflict of interest.

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Annexure: Questionnaire used⁽⁸⁾

- Q1 Do you think range of motion exercise (active or passive) is sufficient to maintain muscle strength in critically ill patients?
- Q2 It is possible to mobilize a patient receiving mechanical ventilation on a stable dose of IV vasoactive medication.
- Q3 Potential effects of early mobilization for patients receiving mechanical ventilation includes faster ventilator weaning.
- Q4 The patient risk associated with mobilizing ventilated patients outweighs the benefits.
- Q5 Staffing is adequate to mobilize patients receiving mechanical ventilation in the ICU.
- Q6 I have enough time to help mobilize a patient receiving mechanical ventilation once per day.
- Q7 The risks to staff of mobilizing mechanically ventilated ICU patients outweighs the benefits to the patients.
- Q8 The risks to staff when mobilizing patients receiving mechanical ventilation includes: musculoskeletal injury, fatigue, added work stress, need to stay late in order to “catch up”.
