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Research paper

Barriers and facilitators to early mobilisation in Intensive Care: A qualitative study

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ABSTRACT

Objectives: To determine the barriers and facilitators of early mobilisation in the Intensive Care Unit.
Background: It is well established that mobilising critically ill patients has many benefits, however it is not occurring as frequently as expected. The causes and ways to change this are not clearly understood.
Methods: A qualitative descriptive study involving focus groups with medical, nursing and physiotherapy clinicians, from an Australian quaternary hospital Intensive Care Unit.
Results: The major themes related to barriers included the culture of the Intensive Care Unit; communication; and a lack of resources. Major themes associated with facilitating early mobilisation included organisational change; improved communication between medical units; and improved resources.
Conclusions: Early mobilisation was considered an important aspect of critically ill patient's care by all clinicians. Several major barriers to mobilisation were identified, which included unit culture, lack of resources, prioritisation and leadership. A dedicated mobility team led by physiotherapists in the ICU setting could be a viable option to address the identified barriers related to mobility.

1. Introduction

It is now well established that mobilising critically ill patients in the Intensive Care Unit (ICU) is safe and may improve functional outcome.[1–3] It may assist with earlier weaning of mechanical ventilation[1,4,5] and its associated morbidities, thus improving patients' quality of life.[6]

Despite this, mobilising patients in the ICU is not occurring as frequently as expected. Previous studies in Australian ICUs found that only 54% of all patient days involved mobility.[7] Of those receiving mechanical ventilation, 95% are not mobilised within the first 72 h.[7] Importantly, there is potential for these numbers to be greatly improved with simple management changes, such as changing the site for vascular access and improved timing of procedures.[6] A point prevalence study completed in 2009–2010 observed mobilisation practices in 38 ICUs in Australian and New Zealand on a specific day. This showed that of 498 patients included in the study, 19% sat on the edge of the bed and 18% walked, however no mechanically ventilated patients sat out of bed or walked. The authors concluded that mobilisation practices in Australian ICUs were low.[7]

There remains a paucity of data to explain why studies supporting early mobility in ICU are not being translated into practice. A previous qualitative study has shown that the presence of a protocol and a champion facilitates mobility in ICU, however this was

Abbreviations: ICU, Intensive Care Unit; M, medical; P, physiotherapy; N, nursing; ETT, endotracheal tube.

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conducted in centres without physiotherapist involvement and only examined nursing staff attitudes.[8]

This study aimed to examine the main barriers and facilitators to mobilisation in ICUs, to inform strategies for better practice.

The research questions for this study were:

1. What are the barriers to and facilitators of early mobilisation?
2. Are these issues similar or different amongst different clinician groups in the ICU?

2. Methods

2.1. Design

The aims of this study were addressed using qualitative descriptive research methods.[9] Qualitative research seeks to understand human experience and perceptions.[10] Participants were identified and recruited using purposeful sampling by a clinical researcher (EB) from the ICU at the Alfred Hospital, Melbourne. Purposeful sampling is the process of identifying participants who appear to be valuable sources of information, as opposed to a random sample.[10] We opted to recruit participants who not only fitted the inclusion criteria below, but who we believed would be able to openly discuss the challenges associated with delivering early mobilisation in the ICU setting.

Focus group sample size was determined by current literature which suggests 6–12 participants per group.[11,12] These numbers are suggested as they are optimal for facilitating effective discussion.[11,12] Three separate focus groups were conducted (one each for medical, nursing and physiotherapy participants). This was done to reduce potential bias and influence on participants from different areas of expertise. Ten general questions were developed to guide the focus groups and to ensure that all three groups discussed similar topics (Appendix 1). However each facilitator allowed the discussion to develop depending on the participants, therefore giving scope for other areas to be discussed. All focus groups were digitally recorded and continued until the ten questions were discussed and participants had no new information to add. Two separate researchers conducted the focus groups to reduce the potential for bias. Researchers also made observational notes during the focus groups that were added to the data pool.

Demographic data were collected at the time of the focus group from all participants regarding work discipline, years of clinical experience and years of ICU specific experience.

Ethics approval for the project was granted from the Alfred Hospital Ethics Committee, Melbourne, Australia. Verbal informed consent was obtained from each subject prior to the commencement of each focus group. Responses were transcribed verbatim.

2.2. Characteristics of setting, participants and facilitators

Participants were recruited from an Australian quaternary hospital with an ICU capacity of 45 beds and over 2000 admissions per year.

Medical, nursing and physiotherapy clinicians were recruited. Participants were required to have greater than one year experience and work in the ICU environment. Potential participants were identified by the researchers and were contacted via group email with an invitation to attend the focus group.

Focus groups were conducted by two separate researchers, with clinical and research ICU experience. The facilitators may have known some of the participants in the focus groups; however they were not currently working with the participants.

2.3. Data analysis

The data were analysed using qualitative content analysis methods. Qualitative content analysis is a dynamic form of analysis, utilising all available data. It involves the simultaneous collection and analysis of data.[9]

The focus groups were conducted, and then transcribed. Each participant was assigned a code number for transcription and quotation to ensure de-identification of data. The data analysis process was completed independently by two researchers (CH and EB). This involved listening to audio, reading and re-reading transcripts and re-listening to the audio until the researchers had become familiar with the data and had reached a state of immersion in the data. Data were then analysed using line-by-line analysis and assigning codes to key thoughts and ideas which arose from the data. The codes were then organised into themes and categories which correctly reflected the data being analysed. The points of view of the participants during the focus groups were closely considered during the analysis process, and respected by linking key quotes with emergent themes and categories. The two independent researchers then met to discuss the findings and were in agreement with the themes and categories identified.

2.4. Trustworthiness and rigour

There are four components to trustworthiness in qualitative research; credibility, transferability, dependability and confirmability.[13] To enhance credibility the data were analysed independently by two researchers (CH and EB). Transferability was addressed by clearly outlining the data collection process, providing key descriptive information regarding the participants and detailed information regarding the data analysis process. This would allow the study to be completed in other similar or different population groups. Dependability of the results was improved by use of quote to back up each theme and sub categories. Confirmability of the results was enhanced by using two independent researchers to analyse the data and line-by-line coding was completed numerous times. Member checking was also completed, whereby the participants were sent the key themes and subcategories for review, this showed that all members agreed with the emergent themes and sub categories.

Rigour in qualitative descriptive research is enhanced by four further components, authenticity, credibility, criticality and integrity.[14] Authenticity was addressed by allowing and observing the participants speaking freely on all topics during the focus groups, using purposeful sampling and by conducting focus groups which tend to diminish the role of the researcher. Credibility was enhanced by using current ICU clinical staff which ensures an insider perspective is gained and criticality by critically reflecting on each research decision. Integrity was addressed by minimising researcher bias (two research completing focus groups and data analysis) and completing member checking.

3. Results

A total of 25 ICU clinicians were included in the study. Three focus groups were conducted one for each discipline, medical ($n = 12$), nursing ($n = 6$) and physiotherapy ($n = 7$). Participants' demographic data are outlined in Table 1. During each focus group ten key areas were discussed. There was variability in the clinician's age and level of experience. The facilitator of each focus group observed an appropriate level of open and detailed discussion by all participants on the barriers and facilitators to early mobilisation and observed no bias related to influence by the other members in the focus group or the facilitators.