An integrated review of influences on clinical decision making by paramedics

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Introduction

Accurate and efficient decision making is a cornerstone of emergency medical care. The challenging environment which paramedics often face requires rapid decision making during assessment and treatment of patients. Moreover, it is widely accepted that clinical judgement and decision making are the most prominent concerns in relation to patient safety. Thus, an understanding of the factors influencing decision making is a priority area for prehospital care.

Aim

The aim of the literature review was to identify literature exploring the influencing factors on paramedic decision making during patient interactions and at the point when paramedics decide to either transport the patient or to discharge the patient at scene.

Method

The literature search for this review located research which identified factors affecting the assessment and treatment phase of paramedic and patient interactions. A systematic search was undertaken using the bibliographic databases PubMed, Scopus, The Cochran Library and Google Scholar utilising the key terms -

- Paramedic*
- Prehospital
- Ambulance*

All literature identified was then evaluated against the hierarchy of evidence for assessing qualitative health research as purposed by Daly et al. as displayed in figure 1.

Results

Analysis of the results of the seven included studies identified four key themes: educational, operational, organisational and social influences.

Education & Experience

Education and experience was identified as the most reported influence on paramedic decision making and was identified in five of the seven papers. All five papers identified a lack of formal training for the participants in each of the areas described in each paper (end of life care, transition pathways, seizures, falls and primary care). Three papers found both confidence and experience also influenced paramedic decisions when caring for a patient. Organisational factors were identified in four papers. The fear of litigation and risk aversion was cited in three papers. Halter et al. found that the majority of paramedics interviewed felt that they needed to ‘cover their backs’ from litigation and the associated repercussions in the instance of a negative outcome for the patient after they had been discharged at scene. Burrell et al. agreed with this finding and proposed that two thirds of the participants did not feel as though they had organisational support should a poor outcome occur. Finally, organisational factors were also recognised as an influencing factor in relation to transport decisions.

Operational

Operational influencing factors were identified in five of the seven papers:

- the time during the shift,
- location of the nearest appropriate facility,
- delays at the appropriate facility,
- available resources,
- increasing demand on the service and health system

O’Hara et al. stated that the increasing demand on ambulance services significantly influenced paramedics’ decisions, in particular single officer responders, as paramedics faced the dilemma of whether to wait on scene for a transport unit to attend or to attend the next waiting case.

Social Environment

Four papers identified the patients’ social environment as an influence on decision making by paramedics with authors identifying the expectations of the patient, bystanders and the family or carers affecting decisions regarding the treatment and care for the patient. One paper also cited the patients’ accommodation as an influence in relation to whether the patient needed to be transported to definitive care or discharged at scene post a fall.

Conclusions

This review has revealed that little research has been conducted in the Australian setting to understand if the influencing factors on the paramedic populations are similar to those abroad. Further research needs to be undertaken to understand the influences on Australian paramedics’ decision making practices to ensure patient safety in the prehospital environment.

References

5. Burrell et al. Operational influencing factors were identified in five of the seven papers:

- the time during the shift,
- location of the nearest appropriate facility,
- delays at the appropriate facility,
- available resources,
- increasing demand on the service and health system

O’Hara et al. stated that the increasing demand on ambulance services significantly influenced paramedics’ decisions, in particular single officer responders, as paramedics faced the dilemma of whether to wait on scene for a transport unit to attend or to attend the next waiting case.

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Organisational

Finally, organisational factors were identified in four papers. The fear of litigation and risk aversion was cited in three papers. Halter et al. found that the majority of paramedics interviewed felt that they needed to ‘cover their backs’ from litigation and the associated repercussions in the instance of a negative outcome for the patient after they had been discharged at scene. Burrell et al. agreed with this finding and proposed that two thirds of the participants did not feel as though they had organisational support should a poor outcome occur. Organisational policies and protocol was also recognised as an influencing factor in relation to transport decisions.

This review has revealed that little research has been conducted in the Australian setting to understand if the influencing factors on the paramedic populations are similar to those abroad.

Conclusions

This review found that the decision making process undertaken for paramedics is complex and instinctive and has various external influencing factors. Further research needs to be undertaken to understand the influences on Australian paramedics’ decision making practices to ensure patient safety in the prehospital environment.