

Grant Information

Grant Type: Patron's Research Grant \$15,000 (Stage 2)

Brief Title: Influences on paramedic clinical decision making surrounding transport and scene discharge of patients

Project Team: List Chief Investigator / Team leader & co-investigators / team members. Include names and organisations.

Chief Investigator –

Outcomes & Significance: Describe expected outcomes and how the knowledge gained will advance paramedic practice? How do you intend to share your experience / learning with your peers and colleagues?

This research will identify factors paramedics use in their clinical decision making to inform their decision to transport or discharge patients at the scene. This evidence will increase our understanding of factors influencing paramedic decision making that can be utilised to achieve best practice and improved patient outcomes. In the environment of overcrowded emergency departments, this research is significant in providing new information about current practice in Queensland that can influence policy and education and ensure the best use of limited resources.

Through collaboration with the QAS Medical Director, Queensland Ambulance Service Education Centre and the Low Acuity Response Unit (LARU) project team, the evidence obtained through this research can be embedded in education packages for all operational officers, LARU officers and policy to improve patient safety outcomes.

It is expected that the outcomes will be presented to the QAS at the annual KJM Symposium to inform paramedic education and clinical policy development.

The literature review, methods and results will be published in appropriate peer reviewed Journals. Findings will be presented at peer reviewed conferences such as the Paramedics Australasia International Conference, EMS Copenhagen or Australia and New Zealand College of Paramedicine to ensure dissemination of the outcomes.

Note: Budget & Resources: What are the estimated costs? Include an estimate of any off-road time required. For research projects describe what human and material resources, e.g. research hours; equipment; travel; postage etc are required? Please indicate why the resources are required. Give the details below in Budget Details and Amounts.

Budget Details	\$ Amount
Focus groups (travel outside of the south east corner & moderator)	1,500
Focus group and interview transcription	2,500
Dissemination of information - (travel, conference fees)	7,000

Paramedics Australasia 2019 EMS Copenhagen 2020	
Stationary - postage, printing of posters for conferences	350
Online focus group platform	1,000
Participant recruitment - facebook ad	500
	12,850

Timeline: Provide the timing and duration, and for research the order of study, milestones and due dates. Note: For a conference, indicate travel dates and conference date(s)

Milestone	Due Date
Dissemination of Methods - CAA/PAIC or ANZCP conference (Date 2019 - 2 day conference & total 2 days travel)	29/10/2019
Dissemination of results - EMS Copenhagen conference (Date 2021 - 2 day conference & total 2 days travel)	29/10/2019
Focus groups (day trip travel to be completed via air travel)	30/10/2019
Intensive Interviews	30/10/2019

Research Stream: Select the relevant research stream for this project:

Stream: Clinical

Rationale for the Project: Why is the project important? What is unique or innovative about the project? How will the proposed research differ or contribute to existing knowledge on the subject of interest?

Paramedics can choose to discharge patients at the scene rather than transporting the patient to an emergency department or another health facility. This decision may impact patient safety, cost, availability of services and appropriate utilisation of health services. Despite this, international research has identified limited research surrounding the influencing factors on paramedics when making this decision. Further, there limited research on factors which influence paramedics' decisions with transporting or scene discharge decisions for patients in the Australian setting.

This research will assist to provide new knowledge surrounding the influences on paramedic clinical decision making. This research will inform clinical practice guidelines such as 'QAS Non-transport' and assist paramedics to assess appropriate care pathways. Further education packages may be developed to challenge paramedics prejudices and require them to consider impacting factors influencing their clinical decision making and efficacy of discharging at scene to enhance patient safety.

State the Research Question:

What factors influence paramedics' decision-making processes in relation to discharging patients at scene or transporting them to an emergency department or other health facility?

Aims & Objectives: Clearly state the aim of the project and articulate a number of concise and measurable objectives to be achieved.

- To identify and explore the paramedics experiences of factors which impact on a Paramedic's decision making when deciding to transport or discharge the patient at scene.
- Develop a theory or frame work to explain the influencing factors on paramedic clinical decision making, when deciding to transport the patient to hospital to discharge at scene.

Project Methodology: Provide a detailed outline of the study design, sampling strategy, data collection methods and how you will analyse the results. Include project logistics and resources of the project.

Methods:

Qualitative research methods are required to explore the decision-making processes which paramedics undertake when deciding whether to provide care at the scene and then discharge or transport to the emergency department or other healthcare facility. This study will employ a Constructivist Grounded Theory (GT) approach to explore this area of paramedic decision-making. As there is little research on the influences on this area of clinical decision making for paramedics, GT is an appropriate methodology to use to explore the research area and achieve the research aims. Grounded theory provides a systematic approach to collecting and analysing of qualitative data, as well as uses an inductive process to allow emergence of data so that the developing theory is grounded in the data. Furthermore, GT is flexible yet provides clear and consistent guidelines to enable the researcher to simultaneously gather and analyse data to construct their theory. The insight gained from understanding and explaining the social processes of the paramedics decision making strengthen the appropriateness of GT for this research and allow for the generation of conceptual theories regarding the influences on paramedic clinical decision making.

Sampling:

Purposive sampling will be used to allow the researcher to identify potential participants who have experienced the phenomena under investigation. It should be noted that purposive sampling is not intended to recruit participants representative of populations or to increase the statistical generalisability of the findings.(1)

Participants of this research must be qualified Advanced Care II or Critical Care Paramedics currently employed in a clinical role by the Queensland Ambulance Service. Paramedics currently working on the High Acuity Response Unit or on the Retrieval Helicopter will be excluded from participating as the high acuity nature of the patient presentation would rarely if ever warrant the consideration of scene discharge.

Data Collection:

Data will be collected by the primary researcher and will include transcripts of recordings from focus groups and in-depth interviews, current literature and other relevant documents related to the area of inquiry.

Focus groups will be used as the initial data collection method, to enable the researcher to gather a range of ideas and focussed discussion on the research topic. The focus groups will be semi structured to encourage discussion on the defined research area with broad, open ended questions to be asked of the group to illicit personal experiences and stories from participants. The collection of data from focus groups will provide rich information to inform the direction for intensive interviews.(2) It is envisaged the intensive interviews will explore in-depth the themes/ideas/issues identified in the focus groups. As Queensland is a large state with many rural and remote areas, the participants will be offered to participate in either a face to face or an online focus group.

In-depth interviews fit well with GT as one-on-one open ended questions provide the researcher with the ability to explore the participant's ideas, beliefs and experiences in depth, providing rich data.(1) Semi structured questions will provide initial structure to ensure that the participants address the topic of the research project yet, allow for flexibility of ideas and issues as they emerge. The researcher conducting the focus group will use these questions to keep the discussion focused on the area of interest.

Data Analysis:

Constructivist Grounded Theory will inform and guide all data analysis. Constructivist GT is characterised by the commencement of data analysis from the initial data collection and continues throughout the data collection phase. (1) The coding process is recursive in nature allowing the researcher to alternate between different levels of coding and data collection through the project.(3) Constant comparison of data is central to GT. Both inductive and abductive analysis is required throughout the analysis to enable the researcher to make conceptual leaps of analysis and gives rise to the development of theory.(3) When coding data experts in constructivist GT recommend using 'gerunds', which are the verb form of the noun to allow the researcher to look past the description and to the active process which is happening and the experience of the participant.(1, 3)

1. Charmaz K. Constructing Grounded Theory. 2nd ed. Great Britan: SAGE Publications; 2014.
2. Marilyn Richardson-Tench BT, Stephen Kermode, Kathryn Roberts. Research in Nursing. 4th ed. Australia: Cengage Learning; 2011.
3. Birks M, Mills J. Grounded Theory: A Practical Guide. Second ed. Great Britan: SAGE; 2015.

Ethical Considerations:

The researcher acknowledges that all research must be conducted in an ethical manner and must adhere to the National Statement on Ethical Conduct in Human Research and the University of the Sunshine Coasts Human Research Ethics Governing Policy.

While this project poses low risk to the individuals who participate it is imperative that all efforts are made to ensure no discomfort or inconvenience to participants involved in the project.

The researcher will apply for Ethical Review and approval received prior to conducting any research. Anticipated risks will be identified and methods to mitigate the risks will be identified during the ethics review process.

Track Record & Skills: Provide a brief outline of your qualifications, skills and track record as it is relevant to the proposed research.

I am currently an active Advanced Care Paramedic II, with a Bachelor of Health Science (Paramedics), Grad Cert Education and am enrolled in a Master of Science by Research at the University of the Sunshine Coast. My project is currently undergoing Confirmation of Candidature and review for articulation to a PhD. I have also successfully presented a poster at the 2016 Council of Ambulance Authorities Conference.

Partners / Supervisors / Mentors: Provide details of any research partners (such as supervisors or mentors), and how they will contribute to the project.

This project is being completed as a part of a Master of Science by Research, my supervision team include:

Principle Supervisor -

Co-Supervisor -

They have provided a consultancy role in development of this application through their ongoing expertise, advice and guidance during all stages of the research project.