

RESEARCH GRANT APPLICATION EXEMPLAR

Project aim (250 words)* (required)

Provide a concise statement describing exactly what your project intends to achieve. Clearly articulate the primary objective and ensure it is specific, measurable, and directly linked to the proposed activities. Avoid broad or vague ambitions, instead focus tightly on the central purpose of the project.

This study aims to enhance the capability of paramedics to provide empathic care for elderly patients. It will achieve this by generating an evidence-based digital “INTERVENTION”, framed upon a older peoples’ lived experience. This study will evaluate existing empathy levels of paramedic students and qualified paramedics prior to, and after exposure to the “INTERVENTION”.

The “INTERVENTION” will involve an older person explaining their life experiences in the context of vulnerabilities of ageing. This will be informed and developed using contemporary literature, and consultation with key stakeholders including expert clinicians, paramedics, and lived experience experts.

Examples of previous “INTERVENTION” can be found here -<https://www.INTERNETION.com.au>. Benefits of this type of resource include the accommodation of different learning styles and asynchronous delivery to allow for the flexibility required by paramedic students and practitioners.

The key objectives are to

- Understand existing levels of empathy in final year undergraduate paramedic students, qualified paramedics, and Community Paramedics/Extended Care Paramedics.
- Create the “INTERVENTION”
- Evaluate the impact of the evidence-based “INTERVENTION” on empathy levels.

Once tested the resource will be further developed as an educational tool that includes a scaffolded pedagogical framework informed by transformative learning principles (Levett-Jones et al, 2022).

Project significance (400 words)* (required)

Explain why this project is important and why it should be undertaken now. Describe the gap in knowledge, practice, or service your project addresses, and outline the potential benefits to patients, paramedic practice, or the broader health system. Applicants should show a clear understanding of the current evidence and the problem the project intends to solve.

Background: The vast majority of patients attended by jurisdictional emergency ambulance service paramedics are aged greater than 60 years (Andrews, 2019; Lowthian, 2011). Paramedics frequently care for elderly people in the community, within residential aged care facilities, independently within retirement villages, and in their own homes. Care of vulnerable geriatric patients along with patient safety and human factors, have been identified as a priority research area in Australian and New Zealand paramedicine (Pap et al, 2024).

Importance: The elderly are a known vulnerable population due to isolation through marginalisation, limited social contact, increased inter-human dependency, reduced ability to self-care, and decreasing cognitive functioning (Sanchini, Gala, & Gastmans, 2022). This can be further exacerbated through moral vulnerability due to “infantilisation”, being treated as an object when empathy is not authentically expressed (Sanchini, Sala, & Gastmans, 2022).

Relevance to Paramedicine: Empathic and compassionate care have been shown to improve clinical outcomes, enhance patient safety, reduce adverse outcomes, and promote increased rapport and trust with healthcare providers (Barker, et al, 2023; Levett-Jones, Cant, & Lapkin, 2019), yet very little is known about the role of paramedic empathy in the care of vulnerable geriatric patients.

(Knowledge gap)

Despite empathy being reported as the third most discussed non-technical skill found in literature on paramedicine (Bennett, Mehmed and Williams, 2020), a literature review conducted by Kus et al (2019) found that empathy in paramedic practice is “vastly understudied”. Furthermore, Parker et al's, (2022) scoping review of altruism in paramedicine highlighted the lack of evidence regarding empathy, compassion and caring in paramedicine.

(Problem)

Other literature also identifies that paramedic undergraduate students have lower empathy scores than other health disciplines (Boyle, Williams & Brown, 2010); that empathy declines amongst paramedic students during the course of their education (Pegano et al, 2019), and that final, 3rd year paramedic students reported the lowest mean scores of empathy (Williams, Boyle & Howard, 2016).

(Solution)

Several studies recommend specific education on empathy should be considered as a broader domain with initial and continuing paramedic education programs (Kus, Batt & Henderson, 2019; Kus et al., 2018; Pagano et al., 2019; Williams et al., 2012, 2016).

This study aims to co-design an evidenced-informed, patient-focused educational intervention that intends to enhance levels of paramedic, and paramedic students' levels of empathy demonstrated towards vulnerable older people.

Outcomes of interest (250 words)* (required)

Describe the expected outcomes of the project and what the research aims to produce, demonstrate, or improve. Clearly outline the primary outcomes to be measured and how they relate to the project aim and methods. Applicants should explain the potential impact of the findings on paramedic practice, education, patient care, or the broader health system.

A qualitative meta-synthesis of “care relationship and interaction between patients and ambulance clinicians” concludes that developing and reinforcing competence in person-centered care is crucial to provide high-quality ambulance care (Tikkanen & Sundberg, 2024).

This project will both generate and test an online, open access, evidence-based educational "INTERVENTION" to enhance paramedic empathy levels towards vulnerable geriatric patients. This will address an existing gap in educational material specifically designed to enhance paramedic empathy levels during healthcare encounters. Existing evidence suggests there are well-established benefits of authentic empathy during therapeutic relationships, such as improved patient-centred care, patient safety and clinical outcomes (Barker et al, 2023; Trzeciak and Mazzarelli, 2019; Levett-Jones, Cant, & Lapkin, 2019).

Experiencing empathy and compassion during healthcare is valued by patients with vulnerabilities (Barker, Tunks Leach, & Levett-Jones, 2023; King et al, 2021, 2023). When combined with professional competency, empathy/compassion has been demonstrated to improve patient self-efficacy which may also reduce unnecessary conveyance to hospital emergency departments (King, et al, 2023).

Role perception of paramedics has been identified as a key factor during decision-making when attending elderly fallers (Simpson et al, 2017). Paramedics (ambulance clinicians) have also expressed the complexity of understanding geriatric persons' right to self-determination (Bennesved et al, 2023). Having greater levels of empathy during these encounters may improve paramedics' ability to provide appropriate patient-centred care when attending these patients. Further, including understanding of empathy during undergraduate education increases preparedness for student paramedics attending work integrated learning, and entry to practice for newly qualified paramedics.

Research methods (500 words)* (required)

Provide a clear and coherent explanation of how the project will be conducted. Outline the study design, data sources, participants, sampling, and analytic approach, ensuring each component is aligned with the aim and outcomes. Applicants should demonstrate an understanding of feasibility and ethical considerations

This study will employ a three-phase sequential mixed research design. The methods have been used effectively with previous research in similar healthcare settings. This includes evaluation of nursing student empathic care of a vulnerable older person using e-simulation (Reid-Searl et al, 2020) and "Cultivating empathy through the development of a virtual empathy museum" (Levett-Jones et al, 2022; Levett-Jones et al, 2017).

Phase 1 – following consultation with expert clinicians, paramedics, key stakeholders and lived experience experts, an evidence-based digital resource will be developed. The benefits of this type of resource include the accommodation of different learning styles and asynchronous delivery to allow for the flexibility required by paramedic students and practitioners.

Phase 2 – following ethics approval, the resource will be piloted with 20 participants (paramedics/paramedic students).

Phase 3 - Following expert panel review and revision of the resource, the "INTERVENTION" questionnaire and empathy evaluation materials will be made available to the wider paramedic and student paramedic population. Changes in empathy levels will be measured through the use of the "INTERVENTION" Empathy Scale. This includes a pre- and post-test, each prefaced with a written scenario. Participants respond to the questions based on their attitudes and feelings toward the person in the scenario pre- and post-exposure to the empathy "INTERVENTION". Each item is scored using a five-point Likert scale with response ranges from 1 (completely untrue) to 5 (completely true). Overall

empathy scores are obtained by calculating the sum of the individual items on the questionnaire and subscales. Changes between pre- and post-empathy scores are analysed using paired sample t-tests or nonparametric alternatives such as paired Wilcoxin Signed Rank Tests. Previous psychometric testing of the questionnaire has revealed good internal consistency with a Chronbach's alpha of 0.96.

Project timeline (200 words)* (required)

Present a realistic timeline that outlines the major stages of the project from commencement to completion. Include milestones such as ethics approval, data collection, analysis, and dissemination. Ensure the timeline reflects an achievable workflow and accounts for foreseeable delays.

Estimated timeline 18-24 months:

- Design of "INTERVENTION" and consultation with key stakeholders and expert panel (3 months)
- Time to recruit participants (3 months)
- Pre-,and post-test of participants (6-8 months)
- Data analysis (2 months)
- Write up manuscript (4-6 months)

Project budget (400 words)* (required)

Detail the funding requested and justify each cost item in relation to the project activities. Ensure the budget is accurate (not just rounded-up numbers), reasonable, and clearly linked to delivering the stated outcomes. Applicants should include only essential costs and describe any in-kind support or additional funding sources if relevant (this strengthens the application).

Statistician – Advice on design and subsequent analysis of data	\$842
RA to design and generate "INTERVENTION"	\$3,124
RA to assist with data analysis	\$1,023
Dissemination (conference fee and travel costs)	\$1,011
Total Requested Funding	\$6,000
Access to "INTERVENTION" Software (In Kind Support from School of Medicine)	\$1,526