**Australasian College of Paramedicine 2021
Student Conference:
Oral Presentation Abstracts and Poster Presentations**

The impact of body-worn cameras on incidence of occupational violence towards paramedics: a systematic review

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Introduction

Recent evidence indicates an increasing incidence of occupational violence towards paramedics. Body-worn cameras (BWC) have been posited as an intervention that may deter perpetrators, leading to a growing number of ambulance services introducing BWCs at considerable financial cost. The aim of this study was to investigate the impact of BWCs on the incidence of occupational violence towards paramedics.

Methods

A systematic review was conducted according to the JBI methodology. EMBASE, CINAHL, Medline, Cochrane Library, JBI Systematic Reviews, TROVE and Google Scholar were searched to identify primary research studies reporting on BWCs as an intervention against an outcome of occupational violence incidence. Primary research papers, publicly-accessible government reports, peer-reviewed and grey literature, if published in English, were eligible.

Results

The search identified 136 results, of which 109 were assessed following removal of duplicates. Following abstract screening then full text review, there were no studies available to include in the review.

Conclusion

This rigorous systematic review identified no published research investigating the impact of BWCs on incidence of occupational violence towards paramedics. This lack of evidence describing the effectiveness of BWCs as deterrents is concerning given their increasingly widespread adoption. Introduction of interventions should be supported by evidence and an analysis of associated health economics. There is a need for ambulance services that have implemented BWC initiatives to make evaluation data available publicly for transparent review to inform decision making elsewhere in the discipline.

An exploration of decision making when accessing emergency healthcare in moderate to severe asthma patients from rural and remote Australia

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Introduction

Asthma is one of the largest contributors of respiratory illness throughout Australia; 11% of the Australian population is affected by asthma with a large amount of those residing in rural and remote locations. With fewer asthma related deaths occurring in major cities, it's important to investigate the extent living in rural and remote areas affects the decision-making of patients accessing emergency healthcare. The aim of this review is to highlight the difference in circumstances between metropolitan and rural and remote Australia in accessing emergency care during a moderate to severe asthma exacerbation.

Method

A scoping review of literature was conducted through the search of electronic databases including EBSCOhost, Medline, CINAHL and ProQuest. Search terms included 'rural or remote or regional', 'paramedic, or ambulance or prehospital or pre-hospital', 'asthma', and 'respiratory conditions' to find peer reviewed journal articles. Snowballing was used as reference lists of relevant articles were reviewed to identify further articles. In addition, government webpages including the Australian Institute of Health and Welfare, NSW Ministry of Health and the Australian Bureau of Statistics websites were searched. Inclusion criteria were added to ensure the articles were peer reviewed and published after 2000.

Results

The key themes identified from the literature were the impacts of environment such as distance from the hospital contributing to increased response times; culture and behavioural habits including the attitude that paramedics take too long to reach patients; education and health literacy leading to the underestimation of the severity of asthma exacerbations; and access to resources leading to the utilisation of telehealth. These four areas were seen to impact patient's decisions on accessing emergency healthcare when experiencing an asthma exacerbation in rural and remote Australia.

Conclusion

The literature uncovered in this scoping review makes it clear there are several factors associated with living in rural and remote Australia that impact on patients decision-making when accessing emergency healthcare and can also impact on paramedic management of asthma emergencies. Undertaking research on this topic is important in order to identify strategies to address these challenges which may lead to improved patient healthcare outcomes.

Management of cardiogenic shock: What can paramedics learn from current literature?

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Introduction

Cardiogenic shock is a life-threatening state of hypoperfusion and hypoxia, resulting in high mortality in the patient population. Despite the frequency of cardiogenic shock presenting to the emergency department, an initial pre-hospital picture and its frequency is relatively unknown. Over the past two decades, hospital-based data has reported a consistently high mortality rate despite aggressive fluid resuscitation and non-specific pharmacological agents. These interventions underpin pre-hospital management and highlight the potential impact of pre-hospital treatment of cardiogenic shock on overall morbidity and mortality. This review will argue that current shortfalls in the literature concerning pre-hospital cardiogenic shock treatment highlight the need for further research to identify safer and more optimal management strategies.

Methods

Selected search terms were entered into seven electronic databases to identify relevant publications in the past 20 years. Inclusion/exclusion criteria were applied, and full texts were reviewed for potential papers. Nine publications were identified as relevant and included in the literature review.

Results

The initial search yield resulted in 131 non-duplicate publications. After applying the inclusion/exclusion criteria to title and abstract, this was reduced to 91 publications requiring review; 63 further articles were excluded after the full-text screen, with another 19 during data extraction. The remaining nine were used for data for this review. The three themes of a) adrenaline and its inadequacies during cardiogenic shock, b) dobutamine and noradrenaline should be considered as front-line drugs for the treatment of cardiogenic shock, and, c) a combination of an inotrope and vasopressor is desirable as a pharmacological treatment for cardiogenic shock.

Conclusion

From this review, it can be concluded that there is a significant gap in our understanding of cardiogenic shock treatment. Most importantly, the literature is extremely limited in pre-hospital experiments and evidence of practice. There remains a significantly high mortality rate within cardiogenic shock, attributed to the utilisation of adrenaline as a first-line agent. This review identified more accurate, safe, and reliable pharmacological interventions utilised within the hospital setting. It stands to reason that these could be investigated further for implementation pre-hospitably, for safer and more effective cardiogenic shock management.

Can undergraduate paramedic students deliver community outreach programs?

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Introduction

Limited research has been reported on the efficacy of engaging medical students to deliver outreach programs. Their efficacy in the delivery of community training is not well understood prompting this research. Several studies have demonstrated that student-led CPR education has had positive effects on the knowledge and correct implementation of resuscitation skills. The aim of this study was to investigate the effects of a paramedic student-led community cardiopulmonary resuscitation/automated external defibrillator (CPR/AED) education session in the context of a pilot community outreach program.

Methods

Members of a rural Queensland community group (n=21, 100% female, 30–70 years of age) attended a free community CPR/AED outreach program. Participants self-report of CPR experience ranged from novice to experienced provider. Participants were invited to complete a paper-based survey instrument consisting of 10 questions, nine with Likert scoring, range 1 (strongly disagree) to 5 (strongly agree) and the tenth an open-ended qualitative question. Participants completed questions 1 to 4 (PRE) before the CPR/AED program and questions 5 to 10 (POST) after participation. A paired t-test model was fitted, and effect sizes (ES) calculated.

Results

There were significant improvements in participant confidence after the training in all POST questions. For example, confidence associated with AED application increased from 2.67 ± 1.3 to $4.33 \pm .73$ $p < 0.01$, ES 1.57 large. A 41% increase in self-perceived CPR efficacy was reported, with the greatest improvement in ability to correctly perform CPR ($p < 0.01$, ES 1.95 large). The effect size for all PRE/POST questions was $> .8$, demonstrating a large increase in ability to recognise a cardiac arrest, perform CPR correctly and apply and operate an AED. Anecdotally, post-program delivery, participants discussed the installation of an AED at a local café as part of an emerging community project.

Conclusion

Although participants reported varying confidence levels of CPR/AED efficacy pre-program administration, all participants reported a significant increase in CPR/AED efficacy post-program. While this study supports the concept that undergraduate paramedics can deliver community outreach programs, small sample size impedes a decisive conclusion.

An unusual case study of cardiac chest pain and the challenges of identifying myocardial infarction from ST-elevation only

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Introduction

A paramedic crew were dispatched to a 50-year-old male presenting with central chest pain. On arrival, the man was in a critical condition in cardiogenic shock with an ECG that was not typical for displaying signs of an acute myocardial infarction demonstrated by ST-elevation. The case identifies the importance of understanding ECG changes suggestive of myocardial infarction without ST-elevation.

Case presentation

The patient, a 50-year-old male with Down syndrome. Down syndrome causes a distinct facial appearance, intellectual disability and developmental delays. It may also be associated with thyroid or heart disease. The patient stated he was eating breakfast as usual when the chest pain abruptly started. He described his symptoms as central chest pain with nausea and agitation. The crew noted that he was pale, with a significantly delayed capillary refill time and increased respiratory effort. The vitals taken by the crew confirmed that the patient was significantly poorly perfused and was in an unstable and critical condition.

An ECG conducted on the patient displayed ST-elevation in lead aVR with ST-depression in leads II, III, aVF and V5-V6. These findings are not typical of ST-elevation myocardial infarction but suggest the more ominous discovery of triple-vessel cardiac disease with a corresponding occlusive myocardial infarction. A condition that is overlooked, underreported or misdiagnosed within paramedicine.

Conclusion

The patient was treated for cardiogenic shock and cardiac chest pain. He was transported by road ambulance to the nearest emergency department 1 hour and 30 minutes from his residential address. Unfortunately, the crew did not carry pre-hospital thrombolytic and could not proactively manage this case as an acute myocardial infarction under current pre-hospital guidelines. This case highlights the need for more inclusive guidelines for treating and managing acute myocardial infarction without typical ST-segment elevation.

Poster Presentations

An exploration of decision making when accessing emergency healthcare in moderate to severe asthma patients from rural and remote Australia

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Introduction:

As one of the largest contributors of respiratory illness in Australia, Asthma affects 11% of the Australian population¹. Of those affected, 74.1% reside in regional and remote locations¹ making it important to investigate the extent living in rural and remote areas has on the paramedic management and decision making when it comes to accessing emergency healthcare.

Aim:

To highlight the differences in circumstances between metropolitan and rural and remote Australia in accessing emergency health care due to a moderate to severe asthma exacerbation.

Method:

A scoping review of literature was conducted through the search of electronic databases including EBSCOhost, Medline, CINAHL, and ProQuest to find peer reviewed journal articles. Search terms included 'rural or remote or regional', 'paramedic, or ambulance or prehospital or pre-hospital', 'asthma', and 'respiratory conditions'. In addition, government webpages including the Australian Institute of Health and Welfare, NSW Ministry of Health and the Australian Bureau of Statistics websites were searched. Inclusion criteria were applied leaving 16 sources to be analysed.

Results

The key themes identified from the literature were the impacts of environment such as distance from the hospital contributing to increased response times; culture and behavioural habits including the attitude that paramedics take too long to reach patients; education and health literacy leading to the underestimation of the severity of asthma exacerbations; and access to resources leading to the utilisation of telehealth. These four areas were identified as impacting patient's decisions on accessing emergency healthcare when experiencing an asthma exacerbation in rural and remote Australia.

Conclusion:

The literature uncovered several themes which impact both patient's decision making when accessing emergency healthcare as well as paramedic management of asthma emergencies. The decision to attempt self-management strategies first or delay in seeking emergency health care in addition to challenges in accessing patients in a timely manner can lead to changes in the treatment pathway of paramedics to achieve a positive health outcome². Undertaking research on this topic is important in order to identify strategies to address these challenges which may lead to improved patient healthcare outcomes.

References

ARRESTING TECHNOLOGY: A NOVEL APPROACH TO MONITORING CPR PERFORMANCE DURING CARDIAC ARREST MANAGEMENT

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INTRODUCTION

Cardiopulmonary Resuscitation (CPR) is a lifesaving skill that is performed by paramedics and other health care providers in a variety of settings. However, CPR performance and efficacy are difficult to estimate in clinical settings including the pre-hospital environment, due to limitations in technology. Understanding the physiological and biomechanical forces involved in CPR can inform educators, researchers and service providers on strategies to deliver optimal CPR. The purpose of this study was to examine the physiological and biomechanical parameters in two settings using novel wearable technology. The first setting was an actual paramedic attended cardiac arrest and the second was a re-creation of this arrest in a simulation setting, adding in the ability to correlate paramedic biomechanical data with that measured by the mannikin. We believe this is the first time in the world this has been done.

RESULTS

Descriptive Statistics			
	Mean	Std. Deviation	N
Mean HR	119.17	13.81	17
Mean RR	20.15	2.55	17
Mean G-force	0.23	0.02	17
Mean X	-687.59	223.13	17
Mean Y	296.22	496.11	17
Mean Z	104.63	250.98	17
Total Compressions	67.65	36.62	17
Total compressions too shallow	54.94	40.66	17
Percent too shallow	74.27	29.07	17
% correct compression rate	5.51	6.79	17

Laerdal QPCR and Session Viewer Software

Correlation Analysis

Variable	G-force	Total Compressions	Total Compressions too Shallow	% Correct Compression Rate
Heart rate		.499 (p=0.04)	.578 (p=0.01)	-.538 (p=0.02)
Respiratory rate	.628 (p<0.01)			
G-force				-.815 (p<0.001)

Regression Analysis

		Unstandardized Coefficients	
Model	(Constant)	B	Std. Error
1	Mean HR	1.702	0.620

For every 1 unit change in HR, there is a 1.7 unit change in shallow compressions

RESEARCH QUESTIONS

1. Can a hip mounted rescue accelerometer data correlate with a mannikin mounted accelerometer?
2. What is the relationship between rescuer physiology and CPR quality?

METHODOLOGY

A paramedic fitted with a Hexoskin biometric shirt on an emergency callout performed multiple bouts of CPR on a patient. The paramedic's heart rate, respiratory rate and accelerometry from a hip mounted triaxial accelerometer (expressed as g-force and separately as x, y and z vectors) were recorded continuously. The paramedic's rate of perceived exertion and blood pressure was measured before and after the arrest. We then recruited a paramedic with similar somatotype and gender to "recreate" the arrest in a simulation setting, also wearing a Hexoskin, to measure the same variables. Additionally, metrics of CPR efficiency recorded on the mannikin (rate and depth of compressions, hand position, flow fraction and time on chest). We examined the data sets for relationships between the physiological, self-reported and in-mannikin accelerometer data.

CONCLUSION

Technology in the form of wearables now enables researchers and others to explore physical and physiological performance in applied settings. In emergency situations where provider performance of skills such as CPR is critical, these technologies provide "real world" data that can be compared with other settings. This ability to compare and correlate the real world with that of simulation will enable a better understanding of the relationships between provider physiological response and their ability to deliver lifesaving skills.

Cultural Competence In Paramedic Education: An Analysis of Culturally Diverse Training Equipment Amongst Universities In Australia And New Zealand

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Introduction

The paramedic profession became a nationally recognised and regulated health profession through the Australian Health Practitioner Regulation Agency in 2018. This milestone brought forward the standardization of professional standards that all paramedics must now exhibit, including the ability to provide culturally safe and culturally respectful care to all patients (1). Although cultural competency is an attribute expected of any health provider, little research has been done to explore how effectively universities teach cultural competency to paramedicine students particularly through the realm of simulation-based learning.

Aim

The aim of this study was to:

- 1) Identify the availability of culturally diverse training equipment such as coloured ALS mannequins and coloured cannulation arms across approved paramedicine undergraduate degrees in Australia and New Zealand
- 2) Explore the the impact that access to culturally diverse training equipment has on a university's ability to teach culturally competent paramedic care

Methods

Academic staff from 16 university accredited paramedicine programs across Australia and New Zealand were invited to complete a quantitative online survey about their access to culturally diverse training equipment and a qualitative survey about their ability to teach culturally competent paramedic care. Responses were then summarised in tables.

Conclusion

The study found that access to culturally diverse training equipment across universities in Australia and New Zealand is limited. There also seemed to be a positive relationship between access to culturally diverse training equipment and a university's ability to teach culturally competent paramedic care. This study highlighted the need for universities to invest in culturally diverse training equipment. The study also facilitates future discussions of how culturally diverse training equipment can impact the learning experiences of paramedicine students during simulation-based learning particularly in the space of cultural competence.

Acknowledgements

We would like to acknowledge Oskar Loughlin, who was unfortunately unable to complete this study with us, for being the catalyst for this study. We would also like to thank academic Steve Whitfield for the effort he puts into ensuring that students like us have opportunities to be involved in studies like this.

Results

There was a total of 13 responses. The total number of students enrolled in each program ranged from <100 - >500. There are a total of at least 140 ALS mannequins, only twelve (n=12) identified as coloured. In addition to this, there are a total of at least 145 cannulation arms, 27 (n=27) were identified as coloured. Most respondents believed that their university taught students how to provide culturally competent paramedic care however universities with greater access to culturally diverse training were more likely to report cultural competency as part of their curriculum.

Respondent ID	Accredited program	Number of students enrolled	Total Number of ALS mannequins	Number of coloured ALS mannequins	Total number of cannulation arms	Number of coloured cannulation arms
A	Bachelor	100-250	10	0	12	0
B	Bachelor	>500	"lots"	0	"lots"	0
C	Bachelor	>500	10	0	10	4
D	Bachelor	>500	20	0	"unknown"	0
E	Bachelor	>500	12	0	16	0
F	Double degree	100-250	6	0	4	0
G	Bachelor	251-500	12	4	10	4
H	Bachelor	<100	10	0	10	5
I	Bachelor	>500	10-12	0	25+	6
J	Double degree	251-500	8	0	8	0
K	Double degree	251-500	30	8	30+	8
L	Bachelor	100-250	Missing data	0	7	0
M	Bachelor	<100	4	0	5	0

Respondent ID	In your own opinion, does your university teach students how to appropriately treat and build rapport with patients of culturally diverse backgrounds?
A	Whilst it is covered in first year lectures, it is not simulated during scenarios.
B	Yes
C	Yes
D	Yes
E	Yes
F	No
G	Yes
H	To some degree, this could definitely be improved.
I	At a basic level
J	Somewhat
K	Data missing
L	Yes - but this is always being reviewed and developed. Mannequins with skin other than white is on our Capex list currently.
M	So-so. Topic is covered during vulnerable populations, and also our community engagement unit.
N	Considerable content is dedicated to this in theory units, however there are of course downsides to it being used from the practical space

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Getting Hands On

A critical reflection of the value of immersive simulation with 360° projection for paramedicine students

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Background

There is considerable debate surrounding simulative education. Within paramedic training, high fidelity simulation can be extremely helpful in building confidence and developing skills such as clinical decision making, communication and stress management. However, the benefits of high-fidelity training need to be considered with factors such as cost and potential adverse effects of the high-stress environment. As students, we evaluate our personal experience at Emergency Australia's high fidelity simulation facilities and provide a critical review of the value of high-fidelity training for student paramedics.

Context

We are three bachelor of paramedicine students from first and second years at a Queensland university. We were selected at random to participate for the first time in Emergency Australia's immersive simulation facility, while our physiological responses were measured by Hexoskin and Astroskin biometric shirts. The objectives were to experience immersive simulation while getting feedback on student physiological response to that experience. The high-fidelity simulation facility was equipped with audio system, temperature control, 360-degree projector, advanced patient simulators and professional actors. Combined, this equipment enabled us to become fully immersed in scenarios and experience additional stressors evident in real clinical practice. Additionally, all scenarios were followed by expert debriefing from the Emergency Australia team, allowing for student reflection and evaluation. As students with limited on-road experience, we found the immersive simulation to be both exciting and challenging. It allowed us to apply our clinical knowledge to dynamic, high-pressure environments that extended beyond the scenarios we had run at university, and to develop a deeper understanding of the challenge's paramedics face on road.

Fig 1. Student preparing for the high-fidelity simulation scenario

Fig 2. External control room

Discussion

In general, we found the immersive simulation to be a positive experience and reported that the high-fidelity scenarios created a safe learning environment in which we could apply and enhance our clinical skills. By reproducing the pressures evident on road, the high-fidelity training and debriefing was both exciting and challenging, resulting in improved clinical practice and confidence without any harm to real patients. This conclusion is also reported throughout various trials conducted on nursing, physiotherapy, and medical science students¹. Based on these reports, it can be suggested high fidelity simulation should be applied in any educational facility teaching paramedic students.

From the literature, negatives of the immersive simulation can include cost, accessibility, over-confidence, and potential detriments to student's physical and mental health, with some research indicating that this type of training does not always foster improved knowledge and skill compared to medium/low fidelity simulation². While the simulations we were involved in were not evaluated for these negatives, further research is still required to explore these potential adverse outcomes. In particular, to establish a better understanding of the long-term mental and physical effects of high-fidelity simulation, and complications surrounding the practicality of applying immersive simulation in educational facilities.

Conclusion

Despite being a relatively new type of training, high-fidelity simulation is already showing potential for improving student paramedic preparedness for

placement and professional practice, with the simulation facilities at Emergency Australia providing an exciting way forward in terms of paramedic student education. Overall, students found the immersive simulation to be beneficial in enhancing their clinical knowledge and skills in a safe learning environment. However, more research is necessary to determine the effectiveness of high-fidelity simulations in comparison to low/medium-fidelity simulation, with consideration of factors such as cost, over-confidence, and potential adverse effects of such a high-stress environment.

Acknowledgments

We would like to extend our gratitude to Sean O'Loughlin and all the associates at the Emergency Australia High-Fidelity Training and Simulation Center for providing us the opportunity to experience high-fidelity scenarios firsthand. We would also like to provide thanks to Griffith University lectures Alex MacQuarrie and Steve Whitfield for organising this experience and providing the astroskin and hexoskin biometric shirts.

Fig 3. The Simulation Centre

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Investigating the Effects of a Mind-Body Practice on the Stress Response of Undergraduate Paramedic Students: A Pilot Randomised Controlled Trial

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BACKGROUND

Previous research has reported a high prevalence of anxiety and stress in the paramedic student population with little or no education aimed at managing stress during acutely stressful situations.^{1,2} Mindful breathing is a mind-body practice that has been shown to positively influence physiological and psychological measures of stress.^{3,4} This study aimed to investigate the effects of mindful breathing on the physiological and psychological stress response of undergraduate paramedic students during simulated clinical skills performance.

a) Method of mindful breathing⁵, b) Application of the mindful breathing technique

METHODS

Sixteen undergraduate paramedic students had biometric and other data collected at baseline, pre-intervention, and post-intervention. Participants completed four simulation-based clinical skills during the pre- and post-intervention sessions: adult peripheral intravenous cannulation (IV), adult supraglottic airway insertion (SGA), infant bag-valve mask resuscitation (BVMR), and adult cardiopulmonary resuscitation (CPR). Half the participants were randomised to mindful breathing training (intervention), while the other half received no training (control). Physiological stress was quantified via heart rate (HR), respiratory rate (RR), heart rate variability (HRV), and blood pressure (BP); psychological stress was quantified via self-reported anxiety. The Hexoskin[™] biometric shirt measured HR, RR, and HRV; the Corpuls³ monitor measured BP; and the six-item state-trait anxiety inventory (STAI-6) questionnaire measured anxiety.

a) Adult peripheral intravenous cannulation skill, b) Adult supraglottic airway insertion skill, c) Infant bag-valve mask resuscitation skill, d) Adult cardiopulmonary resuscitation skill

a) Male (left) and female (right) Hexoskin[™] shirts, b) Hexoskin[™] shirt donned

RESULTS & CONCLUSIONS

Results revealed no significant difference between intervention and control groups for HR mean or maximum, RR mean, HRV, and BP. However, participants in the intervention group reported feeling significantly more relaxed than those in the control group post-intervention ($p=0.04$). Significant increases in HR mean and maximum were observed between baseline and pre-intervention ($p<0.001$) and baseline and post-intervention ($p<0.001$). While this can partially be explained by the physical exertion from CPR, skills requiring minimal physical effort (IV, SGA, and BVMR) also displayed large increases compared to baseline.

a) HR mean by skill for the pre-intervention session, b) HR mean by skill for the post-intervention session, c) STAI-6 mean score by pre- and post-session

In conclusion, while physiological parameters were comparable between groups, students who practiced mindful breathing reported decreased psychological stress. Both groups experienced increased physiological stress during skill sessions when compared to baseline.

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ACKNOWLEDGEMENTS

The authors acknowledge Lloyd Herbert and Dave Wood for their assistance in organising the mindful breathing intervention. The authors also acknowledge the support of Monique Hatchman, Dana Supramaniam, as well as Lifecast Body Simulation Ltd.

The emerging role of undergraduate paramedicine students as research assistants

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INTRODUCTION

Students undertaking undergraduate paramedicine education are often searching for ways to further their academic development and cultivate desirable employability skills. Although research is an enriching opportunity to achieve these goals, it remains an emerging field within paramedicine, and there are minimal opportunities for undergraduate students to partake in research projects. The literature identifies that whilst undergraduate student paramedics are often willing to volunteer as participants in simulated training for data collection, evidence of student research assistants and student-led research projects in paramedicine is limited [1].

WHY IS THIS IMPORTANT

Improving engagement in research is critically important in enhancing the research field and subsequent professional knowledge base within paramedicine. Students must therefore take the initiative to engage in extracurricular research projects with guidance from academic mentors.

Figure 1. Participant data collection

OUR EXPERIENCE

As students enrolled in the second year of a paramedicine degree, we have volunteered as undergraduate research assistants in a paramedicine-specific research project. This current project involves data collection and analysis using an innovative physiological recording device. The pathway to this project involved approaching a research-active paramedicine academic who is known for encouraging student-led projects within paramedicine.

Our experience has not been solely limited to the academic components of research, namely literature reviews and report writing. We have also engaged in further networking opportunities that have allowed us to interact with a diverse array of experts and technology in various settings. These include stunt performers, experienced paramedics, and law enforcement officers in advanced simulation training facilities.

BENEFITS OF STUDENT RESEARCH INVOLVEMENT

- Networking opportunities
- Development of clinical knowledge
- Academic research and writing skills
- Exploring alternate career pathways

Figure 2. Control room at simulation training facility

SKILLS GAINED

Through working in research, we have acquired critical thinking, communication and research skills which are advantageous to our future clinical practice. We now appreciate the sources of evidence that underpin the clinical guidelines within professional paramedic practice, and the process by which this evidence is created.

Figure 3. Physiological monitoring devices

CONCLUSION

Based on our experiences, we aim to encourage more engagement among undergraduate paramedicine students within the research field. Ultimately, students will not only develop the competence for prospective self-led projects, but also acquire skills that will guide their professional career.

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Will my caring profession care for me?

A student's experience of the South Australian Ambulance Service
Peer Support Program

"The SAAS peer support program helped me process my experience after attending a traumatic case whilst on placement. I believe it put me on the path for Post Traumatic Growth as opposed to Post Traumatic Stress and affirmed my capacity and desire to be a paramedic."

Prevalence of PTS in Paramedics

- 97% of paramedics will experience at least one single traumatic event on road.
- 16-34% percent of employees suffer with post traumatic stress symptoms; 3x the prevalence in the wider population.
- Research indicates paramedics desire to speak with their colleagues after difficult jobs to debrief.

PTS vs PTG

- Post traumatic growth is a psychological theory outlining that some individuals are able to experience positive changes following a traumatic event, if they emotionally process the experience.
- Peer support provides the framework for PTG which can lead to enhanced job satisfaction and wellbeing, decreasing rates of mental illness and increasing career longevity.

The Power of 'peer' in Peer Support

The support from a paramedic who shares a mutual understanding of the field of work and its stressors, was crucial to my positive experience. I felt I was understood, validated and part of a wider team.

The Vulnerability of Students

Research shows students are more stressed than the wider population. They are more vulnerable to the traumatic events that they will witness on road. It is my opinion that ensuring students have access to the SAAS peer support program is vital for the long term health of the service itself.

Improving Access

Providing students with a clinician number on road to identify themselves may mitigate the risk of them being missed in the peer support service. Promoting self referral to peer support and a holistic approach to student wellbeing is key in the future of SAAS.

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SOPHIA FLANAGAN-SJOBERG