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Preparing student paramedics for the mental health challenges of the profession by using the wisdom of the experienced

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Abstract

Given the significant mental health issues affecting paramedics, there is an urgent need to promote positive mental health and wellbeing among future cohorts of student paramedics. This study investigated the preparedness of student paramedics for the mental health challenges of the profession, and explored the coping strategies used by experienced paramedics.

The study comprised two parts. Part A comprised two surveys of (a) 16 course coordinators and (b) 302 students of the 16 accredited undergraduate paramedicine courses in Australia and New Zealand. The surveys aimed to identify the perceived need for inclusion of preparation for mental health challenges within the curriculum, and to examine the anticipations, confidence and fears of student paramedics and course coordinators, on commencing their careers.

Part B included 20 semi-structured interviews with experienced paramedics from Australia and New Zealand. The interviews provided an understanding of their anticipations, confidence and fears as they commenced their careers, professional experiences, coping strategies and advice for student paramedics. The findings from interviews were validated in three focus groups, each including six paramedics, that were representative of the geographic spread.

All course coordinators and 97% of students agreed that the mental health challenges of the profession should be included in the curriculum of accredited undergraduate paramedic courses. Experienced paramedics expressed a sincere love for the paramedic role (70%) and used black humour as a coping strategy (70%). Based on the paramedics' lived experiences, advice for students comprised three themes: support for themselves and others, maintaining health, and changes to the profession. These findings were mapped against the aims of Australia's current National Mental Health Policy to provide evidence-based and policy-informed guidelines for the integration of positive mental health strategies into undergraduate paramedicine curricula.

Preparing student paramedics for the mental health challenges of the profession would be advantageous; this could be achieved by including content relating to anticipation, confidence and fears about entering the profession within the undergraduate curriculum. Veteran paramedics have highly credible lived experiences, and can contribute positively to the future of paramedicine by providing advice to paramedicine students about preparing for practice.

Keywords: student, paramedic, preparedness, mental health, coping strategies, wellbeing

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INTRODUCTION

One in five adults in Australia (Australian Bureau of Statistics 2018) and one in six in New Zealand (Ministry of Health 2018) are diagnosed with a mental health condition in their lifetime. By contrast, more than one in two employed first responders and one in three volunteer first responders experience a mental health condition (Beyond Blue Ltd 2018). Furthermore, one in three first responders experience high or very high psychological distress in their work compared to one in eight of the general adult population (Australian Bureau of Statistics 2018). In the context of paramedicine, two-thirds of paramedics were found to have been deeply affected by a traumatic event experienced at work, increasing the risk of post-traumatic stress disorder by four times that of non-exposure (Beyond Blue Ltd 2018). This has led to much media coverage around the physical, emotional and mental demands of the paramedic role.

Investigations into the high rates of mental illness and suicide within paramedicine have been conducted across Australia and New Zealand. One such investigation, conducted by the Western Australia Chief Psychiatrist Dr Nathan Gibson, was implemented after five suspected suicide deaths of paramedics and volunteers from Western Australia between December 2013 and March 2015. The focus of the investigation was to determine whether the individuals' roles as first responders had contributed to their deaths, and to offer recommendations to the ambulance service on future mental health and wellbeing support for staff. While acknowledging the substantial tragedy for families, friends and colleagues—in addition to the cause for concern within the ambulance service, government and wider community—the findings determined there was little evidence to suggest that their roles and the exposure to critical incidents were key factors in the losses (Gibson 2015). Reference was made to the low levels of organisational satisfaction, which was also noted in other reviews across Australian ambulance services, in particular the 'cultural divide' between management and paramedics. A recent national survey of paramedics indicated that poor mental health literacy is a significant barrier to paramedics recognising that they or their colleagues may have, or are developing, a mental health condition (Beyond Blue Ltd 2018). Others indicate that emergency workers are not accessing or are not able to access the levels of emotional support required for the work they are asked to undertake on a daily basis (Knowles 2015).

Whatever the cause, the disproportionately high rate of mental health issues in Australian and New Zealander first responders needs to be addressed urgently. This paper explores what we know about strengthening mental health within the paramedicine profession. A series of guidelines are proposed, which may support undergraduate course coordinators to incorporate mental health and wellbeing into the education and training for this group of future professionals who may experience extreme trauma on a daily basis. Addressing mental health throughout the training and learning phase, with a particular focus on personal signs and symptoms, may encourage the development of individual coping strategies and early support-seeking behaviour as part of everyday health practices. This education and ongoing self-monitoring may not only reduce self-stigma but also assist students through their studies and into their careers by normalising awareness, self-care behaviours and

attitudes towards mental health and wellbeing. In turn, this can promote a more supportive environment and culture within the workplace as these students are the colleagues, supervisors and managers of the future. Students would have the opportunity to become aware of the mental health challenges in a safe learning environment, as opposed to developing ad-hoc coping strategies, with inadequate support, after events due to the focus and demands of the role.

Exemplary guidelines, such as Australia's National Mental Health Policy, promote mental health and resilience among the community, in workplaces and within national policies. These provide frameworks for considering the prevention of mental health problems, reducing the impact of mental illness, recovering effectively and assuring the rights of those living and working with mental health problems and illness. However, despite the plethora of publications on paramedic mental health challenges, there is a lack of literature on preparing undergraduate student paramedics for the mental health challenges of the profession. Therefore, there is a need to study undergraduate student paramedic preparation for practice.

The following research questions were posed:

4. To what extent do student paramedics feel prepared for the mental health challenges of the profession during their accredited paramedicine undergraduate degrees?

5. To what extent do course coordinators believe awareness of, and techniques for addressing, the mental health challenges of the profession should be part of the undergraduate curriculum?

6. What skills and strategies do experienced paramedics feel student paramedics should have to prepare them for the mental health challenges of the profession?

METHODS

STUDY DESIGN

A mixed methods design was used to triangulate qualitative and quantitative data from three distinct respondent groups: paramedicine students, course coordinators and experienced paramedics. These three groups were included to understand the current mental health content in undergraduate paramedicine degrees, to explore students' perceptions of the mental health content and their fears and aspirations for the role, and to identify the mental health strategies experienced paramedics practice throughout their career. These qualitative and quantitative data can be used to inform the development of best-practice guidelines for the implementation of mental health content in undergraduate paramedicine degrees.

SETTING

All 16 institutions offering accredited paramedicine undergraduate degrees across Australia and New Zealand agreed to participate in the study. Interviews and focus groups were also conducted from experienced paramedics located across Australia and New Zealand.

PARTICIPANTS AND INSTRUMENTATION

The undergraduate students and course coordinators completed an online survey that examined levels of preparation for the mental health challenges of the profession, the

inclusion of this topic in accredited curricula, and anticipation, confidence and fears of commencing their careers. Experienced paramedics participated in interviews and focus groups that explored their experiences, coping strategies and advice for student paramedics. Both the surveys and interview questions were piloted with a small group of paramedicine students and experienced paramedics to ensure the questions were understood as intended, and the format and wording was clear. Only grammatical modifications were made prior to commencement of data collection. SurveyMonkey online software was used to develop and disseminate surveys.

Paramedicine course coordinators

Course coordinators from all 16 institutions agreed to participate in the study. Course coordinators were asked to complete an online survey, comprising closed- and open-ended questions about mental health content offered to students as part of the degree, and their perceptions of undergraduate paramedicine students' thoughts, aspirations and fears for their chosen career. Course coordinators were also asked to distribute a similar short online survey to their undergraduate students.

Paramedicine students

Students of each of the 16 participating institutions were asked questions that explored the extent to which mental health was addressed during their degree, as well as their aspirations and fears for their chosen career and confidence in performing their duties.

Experienced paramedics

Paramedics with a minimum of 15 years' service were invited to participate in the study via presentations at paramedic conferences and continuing professional development events. Examples included the Western Australia Chapter Paramedics Australasia Conference, Network of Australasian Paramedic Academics meetings and the Paramedic Australasia International Conference. Paramedics were fully informed of the research through the presentation and subsequent discussion with the researcher. All states and territories of Australia and New Zealand were represented in the sample, including paramedics from metropolitan, rural and remote areas. Semi-structured interviews were conducted with 20 experienced paramedics from Australia and New Zealand to explore their thoughts on entering the profession, their mechanisms for coping with mental health challenges over the course of their career and the advice they would give to students about to commence their career in paramedicine. Findings were validated through a series of three focus groups conducted with paramedics who volunteered for the study and were not interviewed.

DATA ANALYSIS

Surveys

Descriptive statistics were generated using SurveyMonkey for survey data collected from students and course coordinators.

Interviews

Recorded semi-structured interviews were conducted to elicit the stories of survival of the mental health challenges experienced by veteran paramedics and to describe the survival strategies adopted. The use of both closed- and open-ended interview questions allowed for the collection of a large volume of information, while the semi-structured format allowed for free flow of narrative while maintaining focus.

The recordings were catalogued and reconstructed using restorying. This is the process of reconstructing the story from participants using key themes and timelines to reorganise the content (Ollerenshaw & Creswell 2002). Where relevant, the researcher collaborated with the participant to finalise the narrative and ensure that

it was representative of the participant's contribution (Gay, Airasian & Mills 2011). The interviews were analysed using descriptive statistics for the closed-ended questions and thematic analysis for the open-ended questions. The content was the main focus, with key themes created based on the patterns of the stories using the participants' own words. Where necessary, clarification of the meaning was sought to ensure the accuracy of the analyses (Braun & Clarke 2014). This resulted in data that are accessible to both academic and non-academic communities.

Focus group data were analysed in the same way as interview data. Themes were compared and used to validate the interview findings. This enabled broader generalisability across the veteran paramedic community. Focus groups clarified and validated data collected in the individual interviews by utilising the thoughts and opinions of similar professionals. Interview and focus group data were subsequently checked for accuracy and reliability by members of the research team to enhance rigour.

This mixed method approach, using both qualitative and quantitative methods and analyses, enabled a holistic overview of preparation for the mental health challenges and the experiences of veteran paramedics.

ETHICS

This study was reviewed and approved by the Edith Cowan University Human Research Ethics Committee.

RESULTS

DEMOGRAPHICS

Participants represented all states and territories of Australia and New Zealand (see Table 1).

Table 1. Demographics of students, course coordinators and experienced paramedics.

State, territory or country	Student paramedics	Course coordinators	Experienced paramedics
Australian Capital Territory	3	0	2
New South Wales	26	3	2
New Zealand	55	1	7
Northern Territory*	0	0	2
Queensland	68	2	2
South Australia	37	3	2
Tasmania	10	1	2
Victoria	40	3	3
Western Australia	63	3	5

* An accredited undergraduate paramedicine program was not offered in the Northern Territory, so residents of the Northern Territory study at universities in other states.
Note: Some course coordinators and experienced paramedics had worked in more than one state, territory or country.

COURSE COORDINATOR AND STUDENT PARAMEDICS

All course coordinators (100%) and most students (97%) reported that mental health challenges of the paramedic profession should be part of the undergraduate paramedic education and training curriculum. Three-quarters of course coordinators (75%) and students (74%) agreed that mental health challenges of the paramedic profession are currently included within undergraduate paramedic courses. However, there remained a significant percentage of respondents (36% of course coordinators and 43% of students) who consider this topic is not covered in appropriate depth. Importantly, two-thirds (64%) of course coordinators and more than half (54%) of students reported that students were not suitably prepared for the mental health challenges of the paramedic profession. Tables 2 and 3 provide the survey results for course coordinators and undergraduate students.

Table 2. Course coordinator and student paramedic perceptions of mental health preparation in undergraduate curriculum.

Question	Course coordinators (*n*)%		Student paramedics (*n*)%	
	Yes	No	Yes	No
Should the mental health challenges of the paramedic profession be part of the undergraduate curriculum?	100 (15)	0 (0)	97 (274)	3 (8)
Does your undergraduate course currently include the preparation of novices for the mental health challenges of the paramedic profession?	75 (12)	25 (4)	74 (225)	26 (78)
Are the mental health challenges of the paramedic profession covered in appropriate depth?	64 (7)	36 (4)	57 (113)	43 (84)
Has your course suitably prepared your students/you for the mental health challenges of the profession?	36 (5)	64 (9)	46 (113)	54 (131)

Table 3. Actual versus ideal mode of instruction for preparation for mental health challenges in undergraduate curriculum.

Mode of	Course coordinators	Student paramedics

instruction	(*n*)%		(*n*)%	
	How the material is taught	How the material should be taught	How the material is taught	How the material be should taught
Lecture	100 (11)	86 (12)	81 (162)	69 (171)
Discussion	100 (11)	93 (13)	63 (126)	81 (202)
Activity	82 (9)	86 (12)	36 (73)	65 (162)
Independent research	9 (1)	21 (3)	34 (68)	26 (65)
Group research	36 (4)	64 (9)	9 (19)	24 (61)
As a standalone unit	45 (5)	43 (6)	24 (48)	32 (79)
Placement or practicum	19 (1)	7 (1)	9 (19)	11 (27)

Table 4 summarises the issues student paramedics fear most when commencing their career. Fear of making a clinical mistake was the most frequently reported response among both course coordinators (40%) and students (38%). Although 23% of students feared for their personal mental wellbeing, no course coordinators noted this as a perceived fear among students. Conversely, 20% of course coordinators reported students feared working with unsupportive colleagues, yet only 2% of students agreed with this statement. Fears identified solely by students were treating children (13%), aggressive and abusive patients (11%) and the death of a patient (8%). Small numbers of course coordinators and students feared multiple casualties (10% and 5%, respectively) and being accepted as an equal (10% and 1%, respectively).

Table 4. Issues student paramedics fear most when commencing their career as a paramedic.

Themes	Course coordinators (*n*)%	Student paramedics (*n*)%
Making a clinical mistake	40 (4)	38 (62)
Personal mental wellbeing	–	23 (37)
Not getting a job	10 (1)	–
Treating children	–	13 (21)
Aggressive and abusive patients	–	11 (18)
Death of a patient	–	8 (13)
Multiple casualties	10 (1)	5 (8)
Working with unsupportive colleagues	20 (2)	2 (4)

| Being accepted as an equal | 10 (1) | 1 (1) |
| Motor vehicle accidents | 10 (1) | – |

EXPERIENCED PARAMEDICS

To complement the quantitative survey data from course coordinators and student paramedics, experienced paramedics were interviewed to explore their lived experience of the profession, the mental health challenges faced and coping strategies used. This section compares experienced paramedics' perceptions of the mental health challenges with those of course coordinators and student paramedic, and those described in the available literature.

Commencing career aspirations and concerns

Helping people was most positively anticipated by paramedics commencing their career. This view was shared by students and course coordinators: 30% of students positively anticipated caring for people, and 25% of course coordinators perceived this to be important for students. 50% of the veteran paramedics stated that they positively anticipated offering relief in an emergency situation, whilst one-third of course coordinators and 11% of students who identified making a difference to patients and their families as a positive anticipation.

Paramedics recounted the ability to develop rapport quickly as their greatest source of confidence prior to commencing their career. 25% of students cited communication with patients as a source of confidence; this can be considered similar to building rapport. More than 50% of paramedics reported a sense of confidence from knowing they wanted to be a paramedic. This may be linked to the structure of training and employment that existed within some ambulance services 15 or more years ago, whereby volunteer paramedic work was a prerequisite for applying for a paid paramedic position. It could be argued that undertaking a role as a volunteer paramedic would provide an individual with sufficient exposure to be certain of the career path they were following.

At the start of their career, 65% of experienced paramedics felt least confident when they did not know what to do upon arrival at a call. In addition, 30% reported not being able to help or being unable to make decisions quickly as situations when they felt least confident. Clinical decision-making was the area course coordinators felt students were least confident (45%), although this perception was lower among students (25%).

'Not knowing what I was doing' was identified as the source of most fear by paramedics (65%) when they commenced their career in paramedicine. Making a mistake was also cited by more than half of paramedics (55%). These fears are similar to making a clinical mistake, which was the most reported fear by both course coordinators (36%) and students (27%). Upon further discussion with paramedics, it was clear that the potential outcome of not knowing or being able to help could affect the life and wellbeing of a patient, and the career of the paramedic; 35% of paramedics recalled feeling responsible for patients.

Mental health experiences

Seventy per cent of experienced paramedics expressed their love and passion for the role, consistently speaking of their affection for the profession and their 'paramedic family'. This was often associated with a sense of belonging and immense pride in the role. While this is positive, several paramedics identified feelings of loss and reduced self-worth upon leaving the service. It could be argued that these might be common emotions when leaving any role that was enjoyed; however, interviews suggested that

this is perhaps intensified within paramedicine due to the frequent overlap in work and social activities, as well as the strong feelings of being needed and helping others identified.

Half of the paramedics admitted to experiencing long-term negative effects of shift work, including:

- eating and digestion issues

- disrupted sleep patterns

- ongoing tiredness due to changing shifts

- increased feelings of stress and irritability

- high risk of injury.

Twenty per cent of those who cited shift work as an issue added that not knowing when a shift was going to end increased stress levels. Shift work contributed positively to the sense of community and belonging among colleagues and the profession. Many participants referred to their colleagues as their 'other' family. This view could be due to the strengthened relationships of crew partners working long hours in close proximity, often spending a full shift with the ambulance as their base. The stressful, unpredictable and challenging nature of pre-hospital work is likely to build high levels of trust between colleagues, particularly when confidence in each other's decisions, clinically and for safety, is needed.

Sadly, 45% of experienced paramedics had lost colleagues due to mental illness leading to suicide; this was reported by paramedics from all states and territories of Australia and New Zealand. The shock and disbelief felt by family, friends and colleagues after losing someone to suicide often leads to feelings of anger and guilt, which can increase stress and the risk of mental illness (Lifeline 2019).

All interviewed paramedics acknowledged that the role of their profession had changed substantially over the last 15 or more years. About 45% of participants discussed the following specific changes that they had observed:

- increased call volume

- increased community-based and primary care where patients are not always transported to hospital

- reduced or no downtime after critical incidents

- greater awareness of the ramifications of care giving

- population growth and increased geographical spread

- closure or merging of ambulance stations.

Due to changes in the paramedics' role over time, paramedics spend less time together at a station between calls. This seems to have had a detrimental effect on the wellness of paramedics, as it has limited the opportunities for social and habitual contact as well as reduced occasions to rest, eat and share experiences and emotions.

Almost half (40%) of paramedics stated they had experienced both verbal and physical violence on calls. This has been reported widely in the media, with perpetrators being prosecuted and at times imprisoned. Maguire et al. (2014) reported the risk of serious occupational injury among paramedics was more than seven times higher than the national average. Boyle et al. (2007) found 87.5% of paramedics surveyed had experienced some form of violence while undertaking their roles in the community. During interviews, 30% of veteran paramedics linked the rise in violence against paramedics to the increase in alcohol use, illicit drug taking and

calls relating to mental illness. This supports the suggestions made by Boyle and Wallis (2016). They raised the possibility of a decline in respect for paramedics and community helpers, due to a change in societal values and norms, as leading to an increase in violence during calls.

Struggling to let outcomes and connections with patients go was the most difficult aspect of the role for 35% of the interviewed paramedics. When discussing this further, all recalled this being a particular challenge in the early stages of their careers. While this challenge reduced over time, paramedics expressed that it remained difficult to move forward after certain types of calls, regardless of years in service. Calls that paramedics had most difficulty moving on from were those they related to on a personal level, particularly those involving children. Previous research has found that the calls involving children and colleagues caused the most emotional distress (Regehr, Goldberg & Hughes 2002). Over one-third of paramedics (35%) recalled communicating the death of a patient to family or friends as the most difficult aspect of the role. All participants who discussed this said they could remember the first and last time in great detail.

Coping strategies

The following responses are specifically related to the strategies paramedics implemented to survive the mental health challenges of their role. When asked about the coping strategies paramedics use to maintain positive mental health, the most prevalent strategy was the use of black humour (70%). This finding is supported by a study of stress and the coping strategies used by 608 paramedics in Canada, where 90% of participants used black humour as a coping strategy (Christopher 2015). Specifically, the participants stated that black humour was used for stress relief, social support, acceptance from peers and a way to suppress emotions. The data collected in this study showed that 45% of participants coped by talking things through with a crew partner or colleagues, while 45% coped by dehumanising patients by treating the injury or illness as opposed to the person.

Keeping fit and healthy was a coping strategy used by 40% of participants. This strategy was also linked to fostering good sleep routines (20%). The combination of shift work and stresses of the job places paramedics at a higher risk of unhealthy diets and lower levels of fitness. These issues can lead to increased chances of sleep problems, gastrointestinal issues and a lower immune response (Kent, Mason & Batt 2016). Similarly, adopting a routine to unwind before going home after a shift was a strategy for 35% of participants; this links to the theme of normalising strategies to cope with the challenges of the role. 40% of all paramedics stated they continually developed their skills as a paramedic to increase confidence in themselves and their professional judgement. Others focused on a hobby outside paramedicine to help manage stress (30%), and 25% felt the support they received from loved ones was central to maintaining their mental health.

Forty per cent of paramedics admitted to using alcohol, prescription and/or illicit drugs to cope with the challenges of the profession. Reference was also made to issues with gambling (10%). Others said they needed to leave the profession to improve their mental health, and 20% were receiving or had previously received professional help for their diagnosed mental illness.

Advice for student paramedics

The advice provided by experienced paramedics for students was collated into three core themes. The first related to support, focusing largely on offering support to others in the profession and seeking it from colleagues. Staying fit and healthy was the second core theme. Paramedics believed that staying physically fit helped maintain psychological wellbeing. Finally, experienced paramedics recommended changes to

the profession to support students. These included increased support from the employer for managing stress, reviewing rosters to help reduce fatigue, and continuing professional development, particularly related to mental health. These echo the representations and subsequent findings in the recent senate inquiry into the role of Commonwealth, state and territory governments in addressing the high rates of mental illness experienced by first responders, emergency service workers and volunteers (Parliament of Australia 2019).

DISCUSSION

This study contributes to the understanding of factors that impact on the mental health and wellbeing of paramedics. Experienced paramedics' professional and lived experiences can provide insight into maintaining positive mental health and wellbeing. The advice from experienced paramedics was validated through focus groups involving veteran paramedics with a similar length of experience. The advice and coping strategies can help prepare student paramedics for the mental health challenges of the profession, and such information can be included in accredited undergraduate curriculum.

Anecdotal evidence suggests that this topic is valued by those involved in the education and training of student paramedics, as well as the paramedics themselves and their employers. Despite the importance of the topic, this study is the first to research the mental health challenges perceived by undergraduate course coordinators and paramedicine students, and to conduct in depth interviews with veteran paramedics to elicit their advice for novices. The 100% response rate to the course coordinator survey and the completion of surveys by paramedicine students from all undergraduate degree programs across Australia and New Zealand, as well as the willingness of veteran paramedics to participate in interviews and focus groups, provides an indication of the importance of this topic within the profession.

This research found that all course coordinators and almost all students believe the mental health challenges of the profession should be addressed at an undergraduate level; however, only three-quarters believe this occurs and even fewer (approximately half) believe it is addressed sufficiently. Furthermore, less than half of all students believe the course has effectively prepared them for the mental health challenges ahead. Additionally, current paramedics report managing their mental health is one of the most important factors for them in their daily role.

Given these findings and the alarming, disproportionately high rates of mental illness and suicides among this profession, there is an urgent need to develop evidence-based guidelines for the integration of mental health awareness and coping strategies into undergraduate paramedicine degrees. Undergraduate programs are ideal environments in which to begin preparing student paramedics to meet the mental health challenges of their future profession. It is important to acknowledge that this undergraduate teaching cannot, and must not, replace ongoing programs and initiatives by pre-hospital organisations that are intended to support the ongoing mental health and wellbeing of paramedics.

There is significant value for accredited undergraduate degree programs to include comprehensive preparation for the mental health challenges of the paramedic profession, and to raise awareness and educate paramedicine students about mental health prior to commencing their professional careers. Paramedicine students are a captive audience, and there is great potential to enhance patient care and self-care through developing better understanding in their preparatory learning environments. In the same learning environments, the opportunity exists to teach coping strategies

to meet the mental health challenges through the lived experience and advice from veteran paramedics. The common sense, profession-specific, highly credible advice can connect veterans with novices in a unique and positive educational way.

Concerns have been raised about the potential risk of students being exposed to violence while on practicum with ambulance services or other healthcare providers. Preparation prior to commencement of practitioner postings has been highlighted as a valuable action (Boyle & Wallis 2016). This preparation could be undertaken through sharing the lived experiences and advice from veteran paramedics as a segue into developing the following skills:

- knowledge of mental illness, including addictions
- practical communication skills on how to approach distressed patients, including de-escalation techniques
- physical safety awareness.

Preparation could provide a foundation for students to gain valuable exposure and experience in a safe and constructive environment through the use of case studies and simulations before practicum.

Collectively, the themes from this study represent a way forward in the preparation of students by using the experiences of those that have lived and successfully coped with mental health issues while working as a paramedic. Previous literature has often ignored the potential for preparing students for the mental health challenges of the profession and focused on paramedics already working in the role. Findings from the current study have increased our understanding of the mental health and wellbeing of paramedics and the coping strategies used throughout their careers. Furthermore, this study provides insight into how student paramedics could be prepared in their learning phase.

While no evidence-based guidelines for promoting mental health within undergraduate paramedicine courses currently exist, there are pockets of good practice occurring within paramedic services around Australia and New Zealand. For example, the Queensland Ambulance Service has proposed the following self-care advice for first responders:

- care for your body
- care for your emotional self
- care for your cognitive self
- know where you will get support – and use it. (Murray 2013, p. 86)

The lessons learned from students, course coordinators and experienced paramedics have been integrated with the current Australian National Mental Health Policy (Department of Health 2009) and its associated plans to produce Australia and New Zealand's first guidelines for developing mental health literacy among future paramedics.

The resultant guidelines are grounded in the four priority areas of the National Mental Health Policy. They serve to improve paramedics' understanding of their role, mental health in the Australian and New Zealand context and how to promote their own and their colleagues' mental health. The guidelines are twofold. They focus on the content that should be provided to student paramedics: a) 'for me', including information to assist in the development of their own positive mental health and wellbeing; and b) 'for my role', including knowledge about mental health problems

and illnesses, their broad impact, treatment and the rights of those with a mental health problem and/or illness.

Table 5. Alignment of recommendations with National Mental Health Policy

Aims of the National Mental Health Policy	Content	
	For me	For my role
Promote the mental health and wellbeing of the Australian community and, where possible, prevent the development of mental health problems and mental illness	Knowledge of mental health and wellbeing	
	Knowledge of mental illness	
	Knowledge about and attitudes towards the importance of prevention	
Reduce the impact of mental health problems and mental illness, including the effects of stigma on individuals, families and the community	Self-care strategies	Impact of mental health problems (e.g., the ecological model of individual through to broader community)
		Stigma
	Supporting colleagues who may be experiencing mental health problems	
Promote recovery from mental health problems and mental illness	Mental health and illness treatment (short and long term)	
	Online, phone and one-on-one support services	
	Inclusion	
Assure the rights of people with mental health problems and mental illness, and enable them to participate meaningfully in society	–	Theoretical understanding of legal responsibility and rights
		Working with mentally ill patients (e.g., duty of care, restraint, safety, communication, empathy)
(Department of Health, 2009)		

CONCLUSION

The guidelines created in response to this study represent a way forward in the preparation of student paramedics by using the experiences of those that have lived and coped successfully with mental health issues while working as a paramedic. Previous literature has tended to ignore the potential for preparing students for the mental health challenges of the profession and focused on paramedics already working in the role. The guidelines also improve the understanding of the mental health and wellbeing of paramedics, the strategies they have used to cope with the challenges faced throughout their careers and how student paramedics could be prepared for their career in their learning phase. The guidelines may act as a precursor to recommendations four and five from the senate inquiry into the role of Commonwealth, state and territory governments in addressing the high rates of

mental health conditions experienced by first responders, emergency service workers and volunteers (Parliament of Australia 2019). These recommendations focus on the design and implementation of a national action plan for first responder mental health and mental health awareness training, including safety plans.

Future work should investigate how these guidelines may be extrapolated into the training and working practices of current paramedics to provide ongoing support for paramedics once in the job. Ambulance services across Australia and New Zealand have been reviewing and publishing organisational wellbeing strategic plans outlining policies and procedures for focused wellbeing activities and support, for example, workshops and extensive guidance for individual and family support. A continuation of mental health and wellbeing education across accredited undergraduate paramedicine degrees, graduate paramedic training and throughout the paramedic career would promote development of personal wellbeing coping strategies, ensure ongoing access and engender trust in the support available. The guidelines could also be utilised for emergency communication centre and call-taker training.

This study has some limitations. Although all states and territories in Australia and New Zealand were sampled, the number of paramedics interviewed was limited due to the nature of qualitative research methods, and, therefore, are not a representative sample of all experienced paramedics. Focus groups were used to validate the face-to-face interviews; however, a larger sample would increase the representation of the target population. Furthermore, these guidelines have been created based upon the study findings and have not been subject to any validation or acceptability testing.

References
Australian Bureau of Statistics 2018, *National Health Survey: First results, 2017–18,* Report no. 4364.0.55.001, Australian Bureau of Statistics, Canberra, ACT.

Beyond Blue Ltd 2018, *Answering the call national survey, National mental health and wellbeing study of police and emergency services – Final Report*, Report no. BL/1898 11/18, Beyond Blue Ltd, Vic.

Boyle, M, Koritsas, S, Coles, J & Stanley, J 2007, 'A pilot study of workplace violence toward paramedics', *Emergency Medicine Journal*, vol. 24, no. 11, pp. 760–763.

Boyle, M & Wallis, J 2016, 'Working towards a definition for workplace violence actions in the health sector', *Safety in Health*, vol. 2, no. 4, viewed 10 August 2019, DOI 10.1186/s40886-016-0015-8.

Braun, V & Clarke, V 2014, 'What can "thematic analysis" offer health and wellbeing researchers?', *International Journal of Qualitative Studies on Health and Well-being*, vol. 9, viewed 26 September 2019, DOI 10.3402/qhw.v9.26152.

Christopher, S 2015, 'An introduction to black humour as a coping mechanism for student paramedics', *Journal of Paramedic Practice*, vol. 7, no. 12, pp. 610–615.

Department of Health 2009, *National Mental Health Policy*, Report no. P3-4954, Commonwealth of Australia, Canberra, ACT.

Gay, L, Airasian, P & Mills, G 2011, *Education research: competencies for analysis and applications*, 10th edn, Pearson, Melbourne, Vic.

Gibson, N 2015, *Chief Psychiatrist's Review: St John Ambulance paramedic and volunteer suspected suicides*, Government of Western Australia, Department of Health, Perth, WA.

Kent, G, Mason & Batt, M 2016, 'Eat, sleep and be healthy – a paramedic's guide to healthier shift work', *Canadian Paramedicine*, vol. 39, no. 2, viewed 10 September 2019, <http://prehospitalresearch.eu/?p=6199>.

Knowles, L 2015, 'New figures reveal high suicide rates amongst emergency workers; experts warn PTSD sufferers not getting needed treatment', *ABC National News,* 3 June, viewed 12 August 2019, <http://www.abc.net.au/news/2015-06-03/new-figures- reveal-high-suicide-rates-amongst-emergency-workers/6518250>.

Lifeline 2019, *Overcoming Stress. Get Help*, Lifeline, viewed 30 March 2019, https://www.lifeline.org.au/get-help/information-and-support/stress-and-overwhelming-feelings/

Maguire, B, O'Meara, P, Brightwell, R, O'Neill, B & Fitzgerald, J 2014, 'Occupational injury risk among Australian paramedics: an analysis of national data', *The Medical Journal of Australia*, vol. 200, no. 8, pp. 477–480.

Ministry of Health 2018, *2017/8 New Zealand Health Survey*, Ministry of Health, viewed 22 September 2019, <https://www.health.govt.nz/nz-health-statistics/national-collections-and-surveys/surveys/new-zealand-health-survey>.

Murray, J 2013, *Finding the silver lining: stress, resilience and growth in ambulance practice*, Queensland Ambulance Service, Queensland.

Ollerenshaw, J & Creswell, J 2002, 'Narrative research: a comparison of two restorying data analysis approaches', *Qualitative Inquiry*, vol. 8, no. 3, pp. 329–347.

Parliament of Australia 2019, The people behind 000: mental health of our first responders, Commonwealth of Australia, Canberra, ACT, viewed 16 April 2019, <https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/Mentalhealth/Report>.

Regehr, C, Goldberg, G & Hughes, J 2002, 'Exposure to human tragedy, empathy and trauma in ambulance paramedics', *American Journal of Orthopsychiatry*, vol. 72, no. 4, pp. 505–513.