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SPRING 2026

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About Us

Australian Paramedic is a journal being delivered to Paramedics across Australia. Our mission is to support and improve patient care through the sharing of knowledge and information from across Australia, and at the same time aid paramedics through delivering current information from recognised and emerging leaders in emergency care.

We are independent from any employer, associations or groups and our aim is simply to provide current, relevant information to the Australian Paramedic. With an Editorial Board consisting of paramedics and emergency medical professionals we will ensure that the information provided is accurate and timely in this developing professional environment.

Australian Paramedic will continue to evolve over time with feedback and review from readers. The aim of Australian Paramedic is to share knowledge and commentary from experts in the field, as well as provide background information on topics as research and programs develop both in Australia and internationally.

As Australian Paramedic develops we hope to become the leading voice for paramedics to share news, knowledge and information.



Editor's Note

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Australian Paramedic is proud to be independent of any professional association or academic institution.

Welcome to the Spring 2026 edition of Australian Paramedic. We have a few key articles for you in this edition, including new research released aiming to understand attitudes and behaviours of fatigue amongst the paramedic workforce.

Fatigue has always been part of paramedic work, and we have come to accept it as "just part of the job." Long shifts, disrupted sleep, night work, overtime and the unpredictability of emergency care are familiar territory for paramedics. Increasing demand, ambulance delays, hospital access block, staffing pressures and the emotional demands of caring for patients can add another layer. For many, fatigue is not the result of one particularly difficult shift, but the cumulative effect of working under pressure day after day.

As paramedicine expands into new models of care and broader clinical roles, we need to consider the workforce required to deliver these changes sustainably. We cannot continually ask more of our people without also considering the impact of those demands.

The research published within makes an interesting read and should prompt some thinking about our own attitudes, behaviours and perceptions of fatigue, and should we be looking at it differently?

Also in this edition, we highlight the latest release from the Paramedicine Board of Australia (AHPRA) on a revised supervised practice framework. Plus an alternative role for paramedics – a perspective from someone working for underwater film production.

You'll also find the regular highlights of our latest ASM recipients – congratulations to them all! And the Paramedic Observer and FOAMed items.

Happy reading...

headspace

National Youth Mental Health Foundation

headspace is the National Youth Mental Health Foundation, providing early intervention mental health services to 12-25 year-olds. By ensuring help is accessed in early stages of young people's lives and providing a holistic model of support, **headspace** provides a safe space where they can get their mental health and wellbeing back on track.

headspace services cover four core areas: mental health, physical health (including sexual health), work and study support and alcohol and other drug services. Services are confidential, youth friendly and free or low cost. Young people and their families can access services face-to-face at one of 98 **headspace** centres across which can be located Australia at www.headspace.org.au, or via **eheadspace** – a national online and telephone counselling service at www.eheadspace.org.au.

Over the past 10 years, **headspace** has proudly provided over 1.8 million services through centres, online and over the phone, helping over 310,000 young people across Australia. **headspace** wants to ensure young people aged 12-25 have access to youth friendly mental health services, no matter where they live.

Alongside **headspace** centre, online and telephone support, specialised services are provided in the following areas:

- **headspace** School Support – a suicide postvention program, which assists Australian school communities to prepare for, respond to and recover from a suicide.
- Digital Work and Study Service – a dedicated team assisting young people aged 15-24 in education and work options.
- **headspace** Youth Early Psychosis Program – a program focusing on early intervention, aiming to improve the lives of young people, and their families, who are affected by psychosis.

HEADSPACE DONATIONS AND FUNDRAISING

There are many ways to support **headspace** and the work carried out in providing mental health and wellbeing support, information and services to young people and their families across Australia. **headspace** has helped hundreds of thousands of young people get their lives back on track and your support will assist us with our work.

Any donation generously provided to **headspace** goes towards community engagement and awareness, which can be specifically given towards a local centre or to National Office.

Donations to **headspace** National Office, ensures the promotion of the importance of seeking help, to break down stigma associated with mental health issues and to make sure every young person across Australia, as well as their friends and family, knows there is help available.

You can find out more about donations and fundraising through the 'Get Involved' page at

www.headspace.org.au

DID YOU KNOW?

One in four young people have experienced a mental health issue in the past 12 months – a higher prevalence than all other age groups. Alarmingly, suicide is the leading cause of death of young people, accounting for one third of all deaths.

Adolescence and early adulthood is a critical time in a person's life, with 75 per cent of mental health disorders emerging before the age of 25.

SEEKING HELP

Getting support can help a young person to keep on track at school, study or work, as well as personal and family relationships. The sooner help is received, the sooner things can begin to improve.

headspace can help any young person aged 12-25 years-old, a family member or friend wanting to seek information on youth mental health.

These are just some of the reasons someone may seek help from headspace:

- If someone is feeling down, stressed or constantly worrying
- If someone doesn't feel like themselves anymore
- If someone isn't coping with school/uni/work or finding it difficult to concentrate
- If someone is feeling sick or worried about their health
- If someone has questions about, or wants to cut down on alcohol or other drug use
- If someone wants to talk about sexuality, gender identity or relationships
- If someone is having difficulties with family or friends
- If someone is concerned about sexual health or wants information about contraception
- If someone is being bullied, hurt or harassed
- If someone is worried about work or study or having money trouble



The Deep End of Paramedicine

Words by Sunny Whitfield

This article is not about which system is better, but how paramedics from different systems can learn from each other.

When most people picture a paramedic at work, they imagine flashing lights, roadside emergencies, cardiac arrests, and the relentless pace of ambulance life. Few imagine a paramedic standing on an underwater platform in a giant film tank at 2 a.m., wearing a wetsuit, breathing apparatus and underwater comms, while a 200kg mechanical whale is suspended by hydraulics overhead and an actor dressed in 19th-century costume prepares for another submerged take.

Yet for some paramedics, this is exactly what the job looks like.

Working as a paramedic on a professional dive crew for underwater film productions is one of the most unusual and demanding extensions of prehospital medicine. It is a world where clinical knowledge matters, but where success depends just as much on understanding diving physiology, human factors, risk management, environmental medicine, and the ability to operate inside industries far removed from healthcare.

It is also a reminder that paramedicine has a future far beyond the back of an ambulance.

THE ENVIRONMENT IS BOTH CONTROLLED AND EXTREME

Large-scale underwater productions often take place in some of the largest (and smallest) dive tanks in the world. They are purpose-built environments capable of replicating oceans, shipwrecks, storms, and entire underwater worlds.

These are highly controlled environments, but "controlled" does not mean safe. It's a mixture of water, electricity and hydraulics which should never mix.

Dive crews may spend 10–12 hours a day in and around the water, often across weeks or months of filming. A single production can run for eight weeks or more, with repeated exposure to cold water, long dive profiles, physical fatigue, and cumulative cognitive stress.

A standard day might involve rigging a mechanical whale for a fantasy sequence. Another could mean helping coordinate a submerged submarine set piece. On another, the focus may be entirely on the safety of principal cast performing underwater scenes while wearing restrictive costumes, heavy props, or vintage diving apparatus. Productions can range from historical pieces inspired by Captain Nemo and 1800s maritime exploration to modern adventure films involving actors such Chris Hemsworth performing complex underwater sequences which means the risk and the medicine changes with the environment.

WHAT PARAMEDIC TRAINING DOESN'T TEACH YOU

Traditional paramedic education prepares clinicians exceptionally well for acute emergencies but very little of that training prepares you for life as a paramedic on a dive crew. There is no university subject on managing panic in a breath-hold actor trapped inside a period costume underwater. There are no OSCE stations that covers decision-making when a fatigued actor insists they are "fine" despite clear signs they are not but the pressure from the production team and the insane budgets come into play. There are no simulation labs that teach the

The future of paramedicine wont be built in academic institutions alone, but in the courage of clinicians willing to try something new."

Sunny Whitfield

logistics of evacuating an unconscious stunt performer from the bottom of a 12-metre tank while camera cranes, lighting rigs, and set infrastructure limit every movement.

This work demands a different lens.

In order to participate professionally as a paramedic in these roles you need to understand:

• Dive physiology and decompression theory

• Hyperbaric medicine pathways

• Environmental exposure injuries

• Human performance under prolonged immersion

• Fatigue management across extended production schedules

• Risk management in high-consequence workplaces

• Communication across multidisciplinary teams that may include dive supervisors, stunt coordinators, marine engineers, underwater camera teams, and production managers

The paramedic becomes less of a responder and more of a systems safety practitioner.

REAL CHALLENGES IN UNREAL PLACES

Consider: A diver complains of shoulder pain after a long day underwater. In ambulance work, shoulder pain may be musculoskeletal or even cardiac until proven otherwise. In dive medicine, it could represent decompression sickness. The challenge is not simply recognising the possibility, it is managing the operational consequences of halting a production. That can cost enormous amounts per hour (think hundreds of thousands of dollars per hour) and the pressure exists almost exclusively on the attending underwater paramedic, even if that pressure is conveniently unspoken. The clinician must remain clinically objective while navigating an environment where the financial cost of caution is significant to their employer and that requires confidence, diplomacy, and strong professional boundaries.

Consider: One of the greatest risks underwater is not trauma, it is panic. An actor may be highly competent on land but completely overwhelmed once submerged, especially while wearing restrictive costumes, prosthetics, or working in dark, enclosed set environments. A performer dressed for an 1800s underwater sequence may be wearing heavy boots, weighted clothing, and unfamiliar breathing equipment. Claustrophobia, task fixation, and rising CO_2 can rapidly escalate into a dangerous event. Often the intervention is not advanced medicine. Rather, it is anticipation, reassurance, graded exposure, and psychological safety. Preventing the incident matters more than treating it.

Consider: Two months of 12-hour dive days changes even the most resilient people. Divers become tired. Concentration slips. Communication shortens. Small shortcuts appear. This is where paramedics in these environments provide enormous value but only if they are managing themselves appropriately. Fatigue management, hydration, thermal regulation, recovery, and crew welfare become part of clinical practice. Sometimes the best intervention is sending someone home before they become a patient (and this could be the director)

EXPANDING THE ROLE OF THE PARAMEDIC

This kind of work highlights an important truth: paramedics are not limited by the ambulance model. But we are often limited by how narrowly we define ourselves.

The profession has developed exceptional clinicians and the same decision-making skills that work in emergency medicine also translate to expeditionary projects, offshore energy, motorsport, cruise ships, ski fields, humanitarian deployments, remote industrial sites, and film production.

These industries do not simply need "someone who can treat emergencies." They need professionals who can manage risk, lead under pressure, understand operational environments, and keep people functioning safely in places where failure carries real consequences.

That is the future of paramedicine.

FINAL THOUGHTS

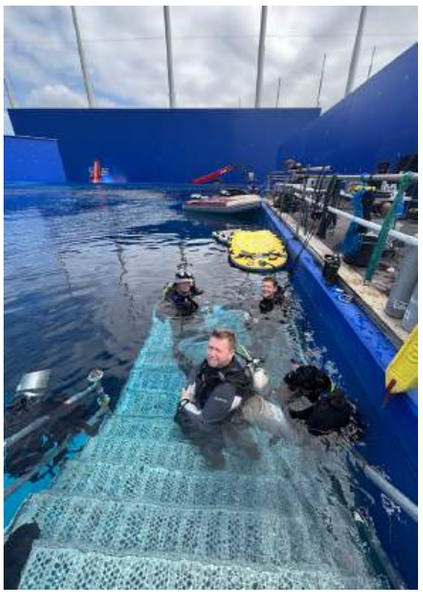
Being a paramedic on an underwater film set means accepting that some days your patient is a stunt diver, some days it is a lead actor, and some days your job is helping prevent a million-dollar production shutdown because someone recognised a subtle safety issue early.

It is medicine, but not as most people imagine it.

And that is exactly the point.

The future of paramedicine needs more curiosity, more creativity, and more acceptance. Because sometimes the biggest leaps forward for a professional are not in an academic report, it's at the bottom of a dive tank, beside a mechanical whale, waiting for "action."

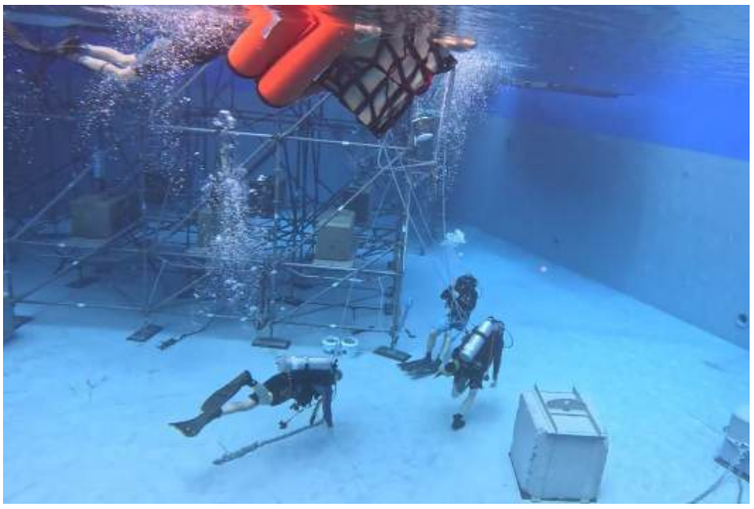
Adapted from an article originally published in ExMedicine - the official Journal of the Academy of Extreme Environment Medicine. Keen to know more? Check out **www.academyexmedicine.com.au** *or reach out to Sunny at* **hq@academyexmedicine.com.au**













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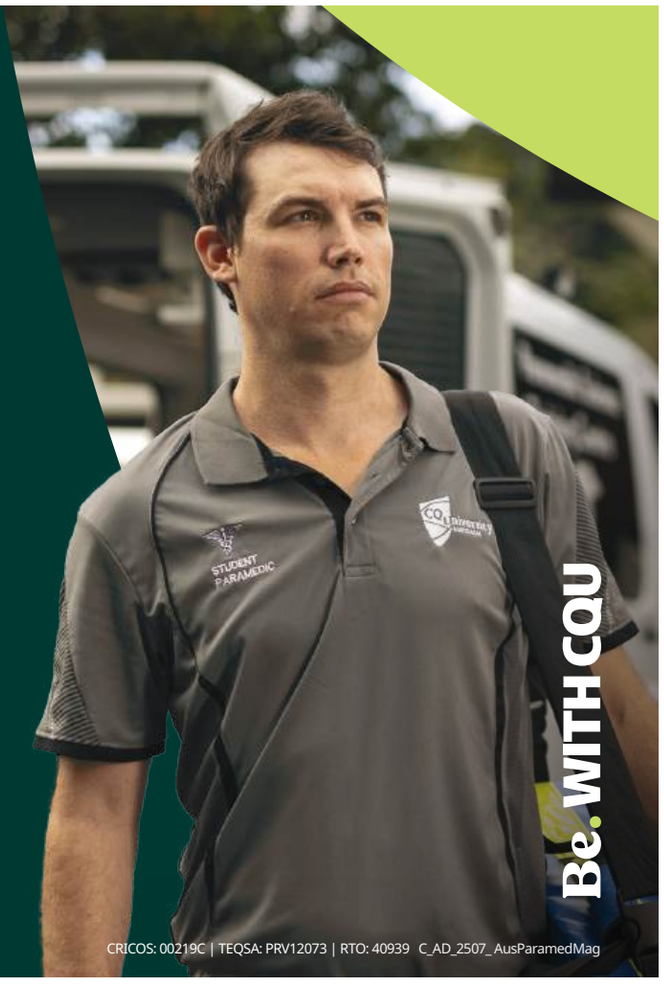
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Fatigue as a sociocultural problem in paramedicine: A qualitative study of attitudes and behaviours related to fatigue in Australian paramedics

Sian E. Wanstall [a], Anjum Naweed [b], Brandon W.J. Brown [a], Meagan E. Crowther [a c], Robert J. Adams [a d], Amy C. Reynolds [a d]

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ABSTRACT

OBJECTIVE

Fatigue in Australian paramedics is prevalent, with negative implications for the safety and well-being of patients and workers, occupational performance, and organisational service delivery. To best inform supportive strategies, this study sought to understand attitudes and behaviours connected to fatigue and fatiguing experiences in the current healthcare context.

METHODS

We used a qualitative methodology involving semi-structured interviews and a scenario invention task with Australian paramedics (n = 30). Data were analysed inductively using reflexive thematic analysis through a constructionist lens.

RESULTS

Seven themes of the paramedic experience of fatigue were constructed under two overarching themes: Working in the trenches and Don't drop the F-bomb. Themes centred around attitudes and behaviours, exploring an experience of fatigue that is shaped by personal identity, organisational culture and broader systemic constraints. Attitudes and stigma related to resilience, camaraderie, and role duty influence paramedic behaviours related to acting on fatigue and/or engage with organisational fatigue management processes, promoting a normalisation of fatigue and use of covert rest strategies potentially obscuring the true scale of fatigue-related safety risks.

CONCLUSIONS

This study highlighted paramedic fatigue as a sociocultural problem in Australian paramedic work contexts. Complex relationships between paramedics and their identities, role duties, and organisations influence how they appraise and respond to fatigue, with consequences for fatigue risk management and safe practices. Alongside addressing social and cultural norms, co-designed fatigue management approaches and improved managerial support may be important for positive worker engagement with individual and organisational management strategies to enhance safe outcomes.

INTRODUCTION

Fatigue is a well-known occupational hazard, and a recognised risk for both patient safety and worker well-being within emergency medical service (EMS) contexts internationally (Donnelly, 2019, Patterson, 2012). In paramedic populations, fatigue has been associated with slower reaction times, less effective decision making, and poorer concentration (Pyper and Paterson, 2016). In the US and Canada, the odds of fatigued EMS workers reporting an error or adverse event were greater than in non-fatigued workers (Patterson, 2012). In Australia, paramedics have attributed experiences of fatigue with poorer driving and road accidents (Pyper and Paterson, 2016).

Cognitive and physical performance effects of fatigue also increase the acute risk of accidents, errors, and injuries (Techera et al., 2016), and likely contribute to chronic health problems for workers (Lock et al., 2018). Further, psychological injury (Kearney et al., 2023), burnout, absenteeism, and attrition, all of which are prevalent issues among the paramedic workforce, are linked to fatigue. High prevalence of fatigue among paramedics is well-documented globally (Donnelly, 2019, Khan et al., 2020, Sofianopoulos et al., 2011, Patterson et al., 2010). However, knowledge and understanding of the paramedic experience of fatigue, remains unclear.

Although contentiously defined in the literature, modern definitions consider fatigue as a complex, multi-dimensional state characterized by changes in cognitive and motor performance, and subjective experience (Behrens, 2023). Fatigue is influenced by a range of physiological, psychological, and contextual factors. In occupational settings, fatigue has been consistently attributed to task-related factors, sleep and circadian disruption related to shift work and social factors, and organisational challenges (Techera et al., 2016, Williamson, 2011, Bendak and Rashid, 2020, Reynolds et al., 2021, Filtness and Naweed, 2017). Although under-explored,

current evidence suggests that similar factors are a concern for paramedics (Paterson et al., 2014, Thynne and Rodwell, 2019). Causes of fatigue from the paramedic perspective include paramedic role tasks (e.g., clinical decision making, manual tasks) working time (e.g., shift work and night shift, inadequate rest breaks, shift duration, and post-shift overtime), insufficient sleep, high workload (and limited downtime), poor health and well-being, work-life imbalance (including family obligations), environmental factors (e.g. hot weather), and inadequate organisational occupational health and safety systems (Paterson et al., 2014, Thynne and Rodwell, 2019, Marvin, 2025).

Within Australia, paramedics deliver a range of essential health care to the community, typically through jurisdictional ambulance services (O'Meara et al., 2012, Bowles et al., 2017, Makrides et al., 2021, Eaton et al., 2020). The evolution of the paramedic profession, alongside wider healthcare access problems, has situated Australian paramedics as a vital component of contemporary healthcare service delivery models. A steady and significant increase in ambulance service demand is apparent within Australia, driven by overburdened and under-resourced healthcare services (Andrew et al., 2020, Lowthian, 2011, Munjal, 2011), creating a flow-on effect of work and organisational pressures for paramedics. In recent years, paramedics have encountered increasing complexity in their core role, which now involves managing a broader range of clinical presentations, commonly including chronic and low acuity conditions (Carnicelli et al., 2024) and mental health presentations (Emond et al., 2024), in addition to emergency cases.

This shift in ambulance case presentations represents a growing community reliance on ambulance services as the first point of healthcare access due, in part, to systemic healthcare under resourcing. Consequently, paramedics are now required to possess advanced assessment skills, engage with a range of referral pathways, and provide prolonged patient care in the back of ambulances during periods of ramping (the delay in patient handover to definitive care). The recent professionalisation of paramedicine, in conjunction with changes in ambulance demand, has given rise to considerable change in the scope of paramedic practice, requiring paramedics to stay abreast of rapidly expanding knowledge and clinical practice guidelines (Reed et al., 2019, Wankhade, 2016)

Additionally, ambulance demand and practice changes were amplified through the COVID-19 pandemic, with corresponding impacts on paramedic well-being (Petrie et al., 2022, Rengers et al., 2021, Sutton et al., 2021 (2021)., Roberts, 2021). Given previously high rates of fatigue among paramedics, limited understanding of the experience of fatigue in the current context of a constrained healthcare climate and a rapidly evolving profession is problematic.

Considering the complex and multifactorial nature of fatigue, approaches to supporting paramedic fatigue need to incorporate system-wide solutions. Importantly, solutions should be underpinned by an understanding of how fatigue is experienced in the current context of high occupational demand. This knowledge is a central pillar for developing context-sensitive frameworks and solutions which are conducive to uptake and engagement. Moreover, understanding how paramedics appraise and respond to fatigue is essential to informing solutions which are acceptable to the workforce. Therefore, the purpose of this study was to explore and characterise the lived experience of fatigue, with a key focus placed on understanding attitudes and behaviours related to fatigue among paramedics. The research questions guiding this study were:

- 1. What is the lived experience of fatigue among paramedics?
- 2. How do paramedics perceive and conceptualise fatigue?
- 3. What common attitudes and behaviours related to fatigue exist among paramedics?

METHODS
QUALITATIVE APPROACH AND RESEARCH PARADIGM

A qualitative research design was adopted, comprising semi-structured, one-to-one interviews which included the Scenario Invention Task Technique (SITT) (Naweed, 2015). The study was positioned within the paradigm of bounded relativism and social constructionism. Relativism posits that while a physical reality exists beyond human actions and experiences, it has no inherent meaning on its own. Instead, it views truth as something that is not singular or fixed, and that knowledge depends on the context in which it is created or understood (Baghramian, 2004) Bounded relativism proposes that reality exists as shared meaning within a bounded group where perceptions, knowledge and values are similar, and in turn, shape a unique reality.

Constructionism theorises that meaning is constructed through language, where researcher and participant work synergistically to co-construct meaning and produce interpretive depictions of participants' experiences

Continued >

(Andrews, 2012). These paradigms were considered appropriate for exploring the paramedic lived experience of fatigue as it recognised that meaning attached to fatigue is contextually shaped, socially constructed, and varies within shared cultural boundaries.

PARTICIPANTS AND RECRUITMENT

A research participation flyer was distributed on social media platforms, through local and national paramedic contacts, and by the Australian College of Paramedicine to their members across Australia in May 2022. Prospective participants were required to be registered paramedics within Australia and have 2–15 years' of experience in this role. Prospective participants (n = 68) accessed REDCap (Harris, 2009, Harris, 2019) (a secure online data-capture platform hosted at Flinders University) through a QR code, provided informed consent, and completed a brief demographics survey including eligibility criteria. Audio-recorded interviews were conducted by two researchers over June-August 2022. Information from the initial survey was purposively sampled (age, gender, location, clinical level, length of employment) for diverse participant interview selection (n = 30) (see Table 1).

PROCEDURE

Participant interviews were between 45 and 142 min and conducted by two researchers. The interview guide (Table 2) was developed collaboratively, drawing on the combined expertise of the research team, including paramedic practice, shift work research, clinical sleep medicine, and methodological and ergonomic principles. The guide was then piloted with two paramedic participants to ensure clarity, relevance, and appropriateness for the study context. In instances of a pre-existing relationship between author and participant (n = 5), the participant was given the choice of interviewing with an alternate researcher.

Interviews were in person (n = 3) and virtual (n = 27), according to participant preference. After initial rapport building questions, the SITT commenced with a prompt to recall or invent a challenging workplace scenario, which could be clinical, interpersonal or operational. Scenarios were created using pens and paper or an electronic tablet, and could be constructed through any formalism (e.g., pictures, words, maps). Participants were asked to recount their scenario verbally to the researcher step-by-step and elaborate on it's challenging aspects. Once created, participants were asked to describe their management of the challenge(s) at hand, first in the context of feeling

Table 1. Participant demographics.

Characteristic		n (%)
Gender	Male	16 (53.3)
	Female	11 (36.7)
	Non-binary	1 (3.3)
	Missing	2 (6.7)
Age[1]		30 [22.0, 43.0]
Years of experience as a paramedic[1]		5.5 [2.0, 10.0]
Employment status	Full time	25 (83.3)
	Part time	4 (13.3)
	Missing	1 (3.3)
Work location	Metropolitan	21 (70.0)
	Regional	6 (20.0)
	Rural	3 (10.0)
State or territory of employment	Western Australia	7 (23.3)
	Queensland	5 (16.7)
	Victoria	4 (13.3)
	Tasmania	4 (13.3)
	South Australia	4 (13.3)
	New South Wales	3 (10.0)
	Australian Capital Territory	2 (6.7)
	Northern Territory	1 (3.3)
Currently working shift work?	Yes	26 (86.7)
Typical work hours (per week)[1]		40.0 [12.0, 48.0]
Overtime hours (per week)[1]		5.0 [0.0, 18.0]
Night shifts (per month)[1]		5.0 [0.0, 14.0]

Note: [1]median [min, max].

rested, and then when feeling tired or fatigued (or vice versa in the event that fatigue was built into the scenario by the participant). To deepen exploration, participants were encouraged to consider broad systems impacts. To achieve this, the interviewer asked probing questions which drew upon on Rasmussen's risk management framework levels (Rasmussen, 1997). This framework acknowledges that safety and performance are impacted by complex sociotechnical factors across the hierarchy of a system.

Following application of the SITT, participants were asked additional questions relating to fatigue management (Table 3).

Table 2. Overview of the semi-structured interview protocol.

Topic	Content	Example Questions/Probes
Background/ Rapport building	Career and current role, role challenges, systems challenges	*What are the top 3 issues in the ambulance sector which directly affect your work performance?*
Application of Scenario Invention Task Technique	Scenario creation	*Recall or create a challenging on-shift workplace scenario.*
	Scenario Reflection – feeling rested	*Imagine yourself in that scenario when you are feeling well rested. What strategies would you use to manage this situation?* Impact after the scenario:*Does the scenario impact the way you behave or think?*
	Scenario reflection – feeling tired/fatigued	*Imagine yourself in that scenario at a time of day when you feel most tired or fatigued – how does feeling fatigued influence how you manage this situation?* Post-challenging scenario impact when fatigued/tired:*What changes in how you think or behave?*
	Rasmussen's Risk Management Framework probes	*Government, regulators, organisation, management, staff, work*
Individual fatigue management	Personal fatigue management strategies, observations of others' fatigue management strategies	*What strategies have you used or developed to manage sleep loss and fatigue?*
Organisational fatigue management	Fatigue management education/training, organisational fatigue processes	*Were you taught any strategies during your training (tertiary education or within organisation) to help mitigate or manage fatigue?Does your organisation provide support systems for fatigue management?*

Continued >

Table 3. Overarching theme and themes with example codes.

Overarching Themes	Theme	Example codes
Working in the trenches	*Wearing fatigue as a badge of honour*	Fatigue is part of the paramedic identity Coping with fatigue makes you a good paramedic Fatigue is normalised Paramedics who don't cope are 'less than'
	The no man's land of managing fatigue	Fatigue management is a shared responsibility Management (don't) support us in managing our fatigue
	It's hard to know when to pull the pin	Where do you draw the line in continuing work when fatigued? External and internal pressures to continue working when fatigued
	Working in survival mode	Paramedics adopt a survival mentality to cope with fatigue Resting under the radar
Don't drop the F-bomb	*Covert fatigue management*	The word 'fatigue' is taboo Paramedics use alternate reasons to cease work when fatigued Paramedics rarely engage with formal fatigue processes or tools
	Policies on paper, not in practice	Paramedics do not value current formal organisational fatigue management processes Formal fatigue processes are sometimes perceived as ill-intended and misused
	Out of service	Generational change in attitudes and behaviours towards fatigue High workload and under-resourcing are driving change in behaviour

After completing the interview, online participants took a digital image of their scenario and sent it to the researcher. A professional third-party service was utilised to transcribe the interviews; transcripts were de-identified by the research team and assigned generic identification numbers.

DATA ANALYSIS

Reflexive Thematic Analysis (RTA) was used as a guiding tool (Clarke and Braun, 2021), and reported according to recommendations (Braun and Clarke, 2023). During phase one, the lead author familiarised themselves with the data by reading hard copies of the transcripts, highlighting relevant excerpts, and making notes. They simultaneously listened to interview recordings to ensure that any nuance in language or delivery (e.g., tone, volume, pauses) was heard and noted, and thus data interpreted as authentically as possible. Notes on body language and expression during the interviews were also incorporated into construction of meaning in this phase. Phase two involved re-reading the transcripts and developing initial codes based on meaningful patterns within the data, both semantic and latent in nature. This process was conducted in NVivo 14, a software program developed for conducting qualitative data analysis (Dhakal, 2022). Following reflexive discussion with the research team, a second reading of the transcripts was conducted to ensure all meaningful data was extracted

and coded. In phase three, initial codes were reviewed and theme construction from broader patterns of meaning across the dataset begun. This process was first conducted manually (on paper), and then using NVivo, and resulted in initial visual mapping of preliminary themes.

In phase four the research team reviewed and extensively discussed the preliminary themes. Semantic meaning regarding certain experiences of fatigue were fruitful; reflexivity allowed for deeper understanding of latent meaning constructed from the data, and bracketing of semantic meaning which was explicit and aligned with the lead authors own experiences of fatigue. This recursive process occurred across several months, and involved numerous episodes of re-engagement with the data at the coding level, as well as with the data set as a whole. This phase saw re-development of codes, as well as preliminary themes, and necessitated re-evaluation and refining of the research questions.

RTA posits that evolution of research question/s throughout analysis is a realistic and sometimes necessary aspect of the analytic process, so long as the final questions still endure within a conceptually coherent study design which addresses the broad question seeking to be understood. Phase five (theme refinement and summation) occurred in a non-linear fashion to phase four, as further development was required through the refinement process to fully capture the essence of the paramedic experience of fatigue. Concept mapping was utilised as a method to establish relationships between themes and to ultimately construct themes from connected codes, and overarching themes from connected themes (Rosas and Kane, 2012).

This method aids organisation and representation of ideas through structured conceptualisation and visual mapping and involves identifying and organising key concepts and their relationships diagrammatically and hierarchically. This type of thematic network construction has been utilised in similar prior research (although different terminology used in relation to themes) (Knobel and Naweed, 2023). Finally, at phase six, an analytic narrative of the final themes was constructed. We did not aim for data saturation, as this concept has been critiqued as incompatible with RTA and increasingly questioned as a useful marker for sample adequacy in qualitative research broadly (Braun and Clarke, 2021, Saunders, 2018).

Consistent with our paradigm, we prioritized depth, richness, and diversity of perspectives over the closure implied by saturation. This study is reported in adherence with Standards for Reporting Qualitative Research (SRQR) (O'Brien et al., 2014).

TRUSTWORTHINESS AND RIGOUR

We drew upon the framework proposed by Lincoln and Guba (Lincoln and Guba, 1985) to guide trustworthy design, analysis, and reporting of this study. Credibility was supported through the SITT, an innovative method which facilitates participant exploration into how they engage and interact within different contextual scenarios to stimulate situational insights. The SITT asks participants to generate and explore a challenging workplace scenario with a systems view (Reynolds et al., 2021, Filtness and Naweed, 2017), and, in this case, contextualise it to paramedic experiences of fatigue.

The SITT has been reliably used to elicit knowledge from workers across various settings and on varying topics including emotions and non-technical skills (Naweed and Kingshott, 2019, Naweed and Murphy, 2023), as well as fatigue (Reynolds et al., 2021, Filtness and Naweed, 2017). Established use in other domains, along with consistent application of the SITT in this study supported dependability. Given the nature of paramedic work, which requires a complex interplay of knowledge and skills within highly uncontrolled and dynamic environments, the SITT was well-situated to facilitate elicitation of the paramedic experience of fatigue within challenging scenarios.

The SITT also involved frequent checks of understanding between participant and researcher to preserve accurate participant experiences and perspectives, and all participants were offered the opportunity to review the transcript. The use of the SITT aligns with research paradigms by enabling participants and researchers to collaboratively construct meaning, while bounded relativism informed the focus on paramedics as a culturally bounded group. Interviews were conducted by two researchers, enhancing trustworthiness by enabling a shared approach to questioning and interpretation, reducing individual bias, and supporting consistency in eliciting participant experiences.

This collaborative approach ensured that data collection remained aligned with the study's paradigm and aims while allowing reflexive discussion of developing insights during analysis. Participant quotes were used throughout to demonstrate that interpretations were grounded in participant experiences, supporting transparency of the findings.

Additionally, the adopted research approach enabled an insider researcher to interpret findings reflexively, and with sensitivity to the unique context. The analysis was

Continued >

led by the first author who is an early-career clinician-researcher with experience in qualitative research methods; as a registered paramedic, the author's own occupational experience (including fatigue experiences) was well situated to inform engagement with the content. Given this positionality, researcher subjectivity was viewed as an important tool for quality analysis, whereby knowledge production is inevitably shaped by researcher practices, supporting credibility and confirmability of results. As such, control measures common within quantitative paradigms, such as intercoder reliability tests, were not considered to be necessary, nor aligned with the study's 'fully qualitative' sensibility (Clarke and Braun, 2021).

This also located the author as an active participant in the research process, enabling co-construction of ideas. Within paramedicine research specifically, considerable benefit of an insider researcher in relation to participant access has previously been discussed. This includes trust and rapport building, as well as a deep understanding of the data (Wilson et al., 2022).

To further support credibility and confirmability, positionality was considered consistently through critical reflection and reflexivity, and through continuous engagement and explicit discussion with the broader, multi-disciplinary research team who were familiar with the data set. One member, a clinical epidemiologist, contributed expertise in sleep health and shift work, another bringing senior research experience in psychology, human factors, and systems thinking, and a third in clinical sleep medicine. Two other members had research expertise in sleep health and shift work, one also bringing lived experience in healthcare and shift work. Additionally, all authors had experience in qualitative research and methodologies.

Collaboration was a fundamental component of trustworthiness within this study, ensuring co-constructed findings grounded in the data rather than researcher assumptions, and is considered essential for robust research within paramedicine specifically (Simpson, 2024). Continuous dialogue with the research team also supported stable analytic decisions and interpretations over time, which, together with the provision of a detailed overview of the analytic process (Supplementary Materials), further supported dependability.

Finally, transferability of findings was supported through transparent and detailed reporting of the research context, participant selection, and analytic process, enabling readers to judge relevance to other paramedic settings or other domains. While the current study is grounded in the Australian and jurisdictional ambulance setting, many factors, such as shift work and dynamic operational environments, are common across international EMS contexts, supporting potential transferability.

ETHICS

Ethics approval was obtained from [Flinders University] Human Research Ethics Committee (Project ID 4668). Confidentiality was preserved through de-identification of data and secure data storage. Participants were informed of their right to withdraw at any time, and appropriate compensation of a gift card ($50) was provided to acknowledge time without creating undue influence

RESULTS

Under two overarching themes, we constructed seven themes around the experience of fatigue shared by participants (Fig. 1). The first overarching theme, Working in the trenches, comprises four themes which characterise fatigue experiences, and the attitudes which shape and sustain lived experience. The second overarching theme, Don't drop the F-bomb, encompasses three themes which reflect how fatigue experiences and related attitudes influence fatigue management within the organisational context. Table 3 provides descriptions and example codes for themes.

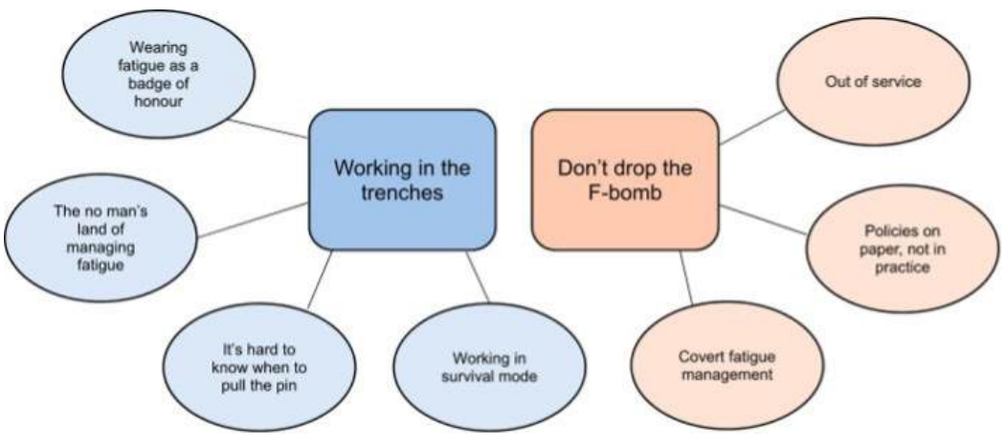


Fig. 1. Concept map for themes related to the experience of fatigue. Note: Squares represent overarching themes; ovals represent themes.

WORKING IN THE TRENCHES

Wearing fatigue as a badge of honour

Fatigue was conceptualised by participants as a complex, multifaceted phenomenon characterised by the depletion of physical, cognitive, and emotional resources. While physical fatigue was discussed, participants placed greater emphasis on non-physical forms of fatigue, particularly mental, emotional, and decision-making fatigue. These forms of fatigue were considered more insidious, and connected to perceptions of diminished functioning and coping within the paramedic role.

The paramedic role itself was felt to be intrinsically associated with an ability to 'cope', overcome challenges, and conceal weakness. This belief extended to fatigue: "I think there's still a little bit of that attitude... if you're going to speak up and say how much you're struggling with your fatigue...you're going to be seen as weak." (P. 19). Yet, participants cited fatigue as one of the hardest parts of their role, and their beliefs about 'being a paramedic' were connected to strong attitudes about how they manage their own fatigue. Having the ability to deal with constant fatigue was considered essential to being a paramedic, and an indicator of job efficacy and suitability. Being fatigued was reportedly worn by many as a "badge of honour" (P. 25) with a common belief that, "...if you can't do the shift work then you shouldn't be in the job." (P. 22).

Attitudes about coping also appeared to foster stigma towards colleagues who do not portray resilience in the face of fatigue: "...there can be this kind of stigma... of like 'Oh, just put up with it'..." (P. 1). This attitude was also conveyed as the norm, where choosing to work as a paramedic comes with a need to accept fatigue as part of the job. This meant that openly engaging in healthy and safe behaviours to manage fatigue (e.g., changing shift schedules, engaging with formal fatigue policies) could be interpreted as a sign of weakness in the workplace. A few even reported that some paramedics held the belief that those exhibiting fatigue management behaviours may not be considered a 'real' paramedic or "...can't hack being a paramedic" (P. 25).

Consequently, not wanting to display weakness when experiencing high levels of fatigue appeared to go together with a normalisation of fatigue. Although participants typically reported common attitudes toward fatigue as problematic, ultimately it was perceived as a problem to be hidden and managed at the individual level:

'You can feel yourself drifting onto the shoulder of the road... it's not ideal, but you know, there's still a job expected of me to do, so I've still got to find ways around that to get it done" (P. 6).

Conflict between cultural attitudes and highly fatiguing experiences left many feeling they were on their own when it came to managing their fatigue.

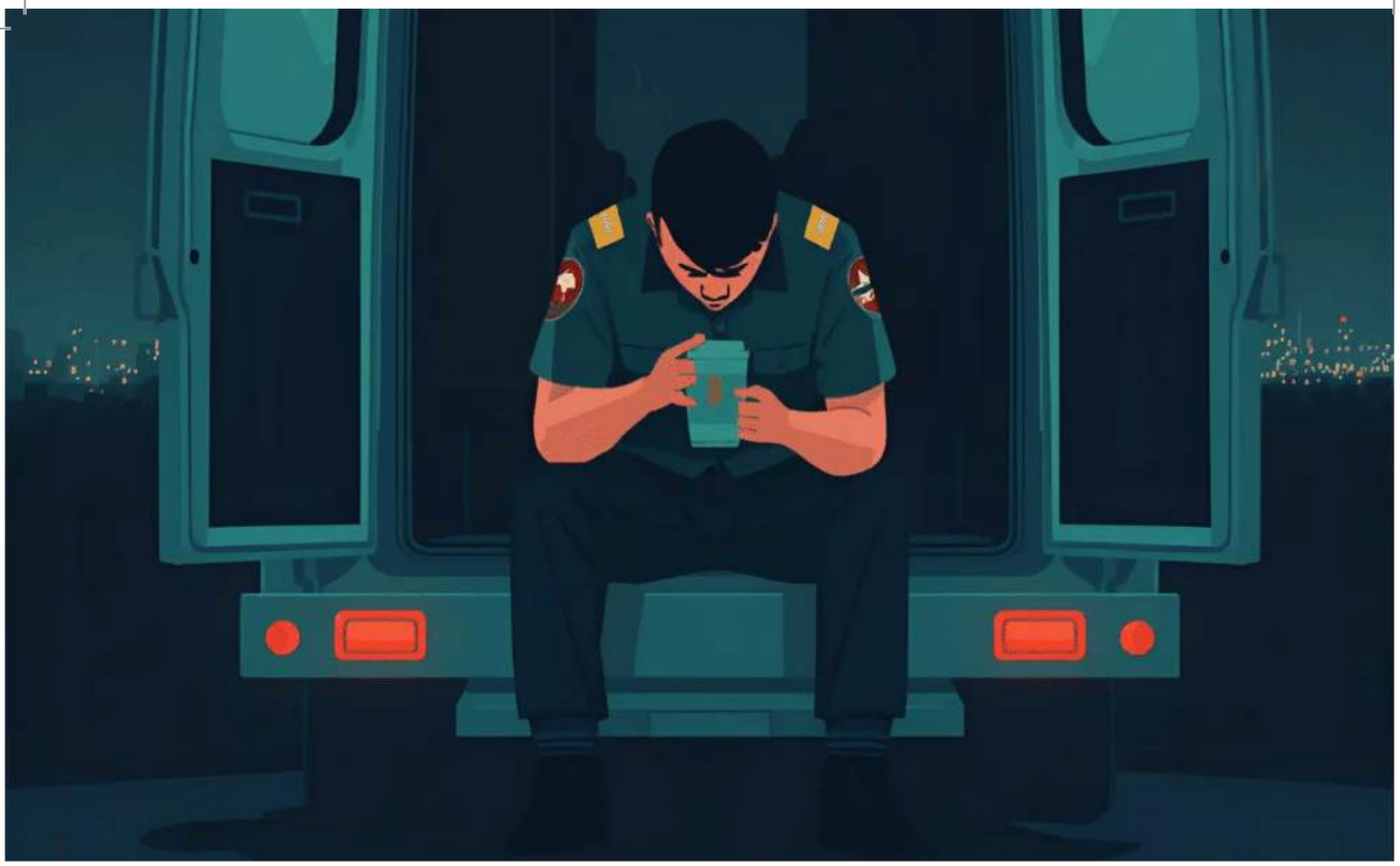
The no man's land of managing fatigue

Participants similarly shared attitudes toward organisational management of fatigue, which contributed to the concealment and normalisation of fatigue, and the perception of having to manage the problem individually. An understanding of shared responsibility for fatigue management in the workplace, and the importance of taking individual responsibility, was demonstrated: "...there's an element of responsibility on the person who's working to be prepared for your shift." (P. 26). Some participants distinguished the burden of responsibility for fatigue based on whether one was off- or on-duty: that is, the responsibility of the worker was to be prepared for shift, and the responsibility of the organisation was to appropriately manage fatigue during shift.

Others, typically those working in regional areas, demonstrated on-shift accountability through engagement with formal fatigue processes: "So, the onus is very much on the individual to kind of reasonably make those decisions to implement things from the fatigue policy..." (P. 1). However, the responsibility of organisations to manage paramedic fatigue was felt to be of equal, if not higher, importance than individual responsibility, and often discussed in the context of work health and safety. Consequently, translation of shared responsibility into practice was a contentious issue. Participants often felt that the onus was placed on paramedics by their organisations: "...it's very much like you manage your fatigue and come to work. It's not our job." (P. 5).

One participant discussed how high workload, together with attitudes about role identity discussed in 'wearing fatigue as a badge of honour', may also influence attitudes around individual responsibility:

"...there's still like these two big attitudes on road where some people are like 'the answer to us being so fatigued is they just need to give us more vans [ambulances] and make sure we get more downtime', and so they're uninterested in really doing anything for themselves in order to manage it because it's the organisation's fault that we're not sleeping at night and that the fatigue is catching up with us." (P. 25)



Support from management was seen to be essential for managing fatigue effectively as an individual; yet many did not feel supported by their organisation. Negative interactions between paramedics and lower-level management were described, and some felt judged by senior members of management who were no longer on-road. Experiences of fatigue for senior staff were believed to lack comparison given recent changes to system demands and workload. A perception of 'Us vs Them' between management/organisations and on-road staff was evident more broadly and connected to a deeper perception of historical and deep-seated mistrust.

Disconnect and mistrust were considered to impact support broadly, including management attitudes towards fatigue: "... [effective fatigue management] becomes infinitely more complex and difficult to do because of that interesting relationship that paramedics seem to have with their employer." (P. 25). A common attitude fuelling feelings of poor support was that maintaining ambulance resources in the current resource-constrained context took priority over the welfare of fatigued workers; however, "...the compromise at the end of the day cannot be staff welfare." (P 6.)

On balance, participants acknowledged that their experience of fatigue is in the context of broader healthcare system constraints, and felt organisations had their hands tied when it came to effective fatigue management due to limited funding and resources. Barriers to effective fatigue management for organisations were identified across the system, with participants recognising "... it is bigger than just staff not feeling supported. It's not just a [Ambulance Service] thing. It is a whole government health issue because it's not just paramedics that are fatigued." (P. 14), and "... it probably needs like a legislative change or something like that... we're all just hanging on by a thread, including management. I don't blame them for being stressed." (P. 2). While feelings of being unsupported by organisations were evident, others did feel supported to manage their fatigue, particularly when located in regional or remote areas. These participants attributed this to more positive culture around reporting fatigue amongst peers, as well as explicitly supportive attitudes and behaviours from lower-level management: "we're a very small station and we're all, you know, [we] look out for one another." (P. 11).

3.1.3. It's hard to know when to pull the pin

Participants commonly felt unsure of when to act on their fatigue while at work, often due to cultural attitudes and system-level pressures. All participants shared at least one story about deciding to commence, or continue, work despite experiencing high fatigue. Sometimes, risks were only acknowledged retrospectively: "When you're that tired you just are doing whatever you can just to get through. Every time I would look back and be like 'why the fuck did I do that?'" (P. 27). A sense of duty to care for patients was evident in many and contributed to feelings of guilt around acting on fatigue. Feeling personal responsibility to maintain resourcing was also a consistently voiced internal

pressure to continue work in the context of high fatigue. Some reported that absence due to fatigue could result in another paramedic working alone, or no ambulance resource at all in regional contexts. The result was an attitude of not being 'ok' to call fatigue in any circumstances for some. These pressures also meant that acting on fatigue was broadly considered "a big deal" (P. 5).

Attitudes and expectations about acting on fatigue from peers and managers were an external pressure to continue work. For example, "...at one o'clock in the morning she pulled the pin [called in fatigued] and I know that the other crews that were on, were speaking negatively about it." (P. 24). A mentality of pushing through fatigue was considered common among peers and throughout organisations. These attitudes were typically connected to resourcing problems, where acting on fatigue was seen to shift the burden of workload to others, as was having to keep working in times of high workload and uncovered emergency cases: "We're constantly pressured to clear from hospital straight after like, handing a patient over." (P. 20).

These external pressures were connected with individual worry about the impact of discontinuing work due to fatigue on both colleagues and patients ("It shifts from caring about the patient to caring about yourself." (P. 23)), contributing to an internal pressure to keep pushing through.

WORKING IN SURVIVAL MODE

Participants invariably described their job, and their fatigue, in the context of 'survival'. This mentality aligned with the 'just get on with it' attitude and was framed as a coping mechanism when enduring high fatigue. A facet of survival mode described by several participants was 'autopilot', a cognitive strategy used to perform in a highly fatigued state: "...you switch onto that autopilot mode... You just do the absolute bare minimum, which sounds terrible, but that's just, well, it's the survival." (P.6). Autopilot was considered as a necessary skill for paramedics, which has benefits in high cognitive load situations. However, when used as a coping strategy for fatigue, some expressed concerns about how it can impact performance and patient care: "...you are leaving yourself open to clinical misjudgement and clinical errors." (P. 28).

Performing in survival mode also impacted engagement with debriefing, which was considered an essential strategy for processing traumatic or clinically challenging situations. Some reported that operating in survival mode can influence both desire and capacity to engage with debriefing as it "...requires that bit of critical thinking and reflection..." (P. 29). Not debriefing was seen to negatively impact reflection on challenging situations, as well as appraisal of clinical practice:

"... you are exhausted when you finish and you do a big job, the last thing you want to do is talk about it or debrief... It definitely contributes to how you [process], like in long term mental health stuff [and] probably contributes to clinical errors..." (P. 23)

Participants described ways they control their chance to rest when working in survival mode, including strategic clearance times, role swapping, and resting on the ramp. Persistent external pressures to continue working, as discussed in 'It's hard to know when to pull the pin' drove frustration, and a desire to regain a small degree of control in a system that participants felt does not allow for adequate rest. As a result, another survival strategy was strategically timing hospital or scene clearance ('controlling the clock'). This strategy can increase the chance to rest after handing over or ceasing patient care and decrease the likelihood of being dispatched to another case when a break or knock off is due. The attitude that paramedics had to look out for themselves may contribute to controlling the clock:

"...there was no one looking out for anyone. It became like a dog-eat-dog world where you had to physically manage your own fatigue and just not clear from the last jobs so that you could just eat your food or go to the toilet." (P. 22).

Another common practice for finding periods of rest was to "swap roles" (P. 17): changing the driving and patient attendant roles when working in a pair. Attending a patient when fatigued was seen to carry less risk than driving fatigued, the less fatigued paramedic thus taking the role of driver. There was conflict in how participants felt about this strategy: "...if you are so tired that you are going to make errors or make medication errors or miss stuff for another human that's trusting you to look after them, then that's also not okay." (P. 23). However, this strategy was not always feasible; one participant who worked in a single responder role highlighted that for those working alone, these strategies may not be available, explaining how a single responder can "...just go from one job to another" (P.146) without an opportunity for rest. Some participants also discussed using time spent ramping for rest or napping.

Others felt however, that time on the ramp should not be considered an appropriate rest opportunity due to a need to maintain professionalism and responsibility. This tension may be attributed to some participants feeling that this rest

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was seen as a substitute for more meaningful rest breaks which allow for effective recovery: "... you're still monitoring the patient, you don't actually get to sit down and just switch off." (P. 14).

DON'T DROP THE F-BOMB

Covert fatigue management

The word 'fatigue' was commonly thought of as taboo: "... yeah, that's the F-bomb in ambulance [organisations]" (P.13), which was demonstrated by behaviours paramedics use when they do act on their fatigue. Participants indicated an avoidance of the word fatigue itself due to negative associations: "...the F-word has literally been like the dirty word. No one says it, no one rings up and says, 'oh I'm too tired'." (P. 28). Instead, giving an alternative reason to need to discontinue work, such as sickness or a family issue, was common practice. Claiming sickness and consequently using sick leave, however, was a complicated issue when it came to calling fatigue. Some felt that it is "...easier to book off and use sick leave." (P. 19) but recognised that this had implications for sick leave allowances which may be needed in other illness contexts.

Consciously avoiding the word fatigue when discontinuing work was influenced by a fear of perceived or actual repercussions. Formally reporting fatigue was thought to require justification, such as an objectively fatiguing experience. Some causes or experiences of fatigue were considered 'less than' or seen as a poor reason for feeling fatigued. For example, "...I'd be too scared to like call fatigue if it was just like my one-night shift because I feel like there wouldn't be many extenuating circumstances for me to be like eligible to like say that." (P. 4). This was not the case for all participants, with one regional participant sharing: "...if I say, 'I need rest...', they're never really going to challenge you on it which is quite good." (P. 10).

Uncertainty about organisational responses to formal fatigue reporting also impacted decision-making: "If you put your hand up and say you are fatigued, then there's a process that's followed. But that's not often accessed because that feels punitive..." (P. 26). The process of formally reporting was also perceived to be too arduous by some from an individual perspective (e.g. requirements to complete incident reports), and an organisational perspective (i.e. an administrative burden for managers). Not using fatigue scoring tools was common, "I can say with confidence I've never used it" (P. 29). This was tied to both limited knowledge of organisational tools, as well as fear of judgment:

"I could call up on my way to a shift and say, 'Hey, I just did the fatigue score, and I've scored, you know, some absurd number' ...But then [you're] going to be questioned 'oh, well, you know, you logged off, you know, and you've had your 10 h break.', So clearly, I haven't done enough to manage my own fatigue". (P. 6)

Policies on paper, not in practice

Knowledge and attitudes toward formal organisational fatigue management processes also drove disengagement from using the word fatigue, and in turn, processes and tools available for fatigue management. Many participants placed little value on formal processes and fatigue scoring tools, with some seeing them as inadequate and lacking in meaningful outcomes. Fatigue scoring tools or calculators were sometimes considered difficult to use: "...it was easier to work out paediatric drug doses in the middle of the night on the way to a job than it was to work out your fucking fatigue score" (P.23). Others felt that scoring tools were not representative of their experience of fatigue (e.g. tools that don't represent fatigue as a broad construct). In some instances, fatigue scoring tools were considered tokenistic:

> ***"So, we've got this [tool]... it's just a ... band aid, basically, that they've, kind of, stuck on to say, you know, if you're [level] fatigue you can go home, whereas, I think, we're all quite you know, experienced enough to know when we're tired and to, kind of, call off."*** *(P. 11)*

Further, a degree of scepticism was evident in attitudes towards the intent of implementation of formal fatigue processes ("only because they have to. Legislative." (P. 16)), and how they are used in practice: "...there's [been] various points where our communications centre has been made aware that this person's reached the end of their fatigue level and still dispatch them on jobs." (P. 24). Extending on this, one participant expressed that in their experience, formal fatigue processes were typically unenforced, sharing "it's just not followed with the current climate [high workload and under resourcing]" (P. 24). Misuse of formal processes also extended to paramedics on-road and may exacerbate challenges with applying fatigue management approaches when a paramedic needs support. For example, one participant suggested that some paramedics may use these processes to their advantage:

"...you're coming up for the last [hour] of your shift and then you get sent on a job... people are like, 'Oh, this is so not... a lights and sirens job. Why are we going to this rubbish?' and then they'll call up and they'll be like, 'I'm fatigued. Take me off.'" (P. 12).

In contrast, some participants spoke positively about the presence of a formal fatigue process within their organisation. Having an optional window of rest, or a defined period of uninterrupted time to rest or sleep despite still being on-call (often referred to as being 'stood down') was seen as both positive and essential when working on-call: "... it's amazing because you don't have to worry about getting called, you can just sit there and just focus on your sleep." (P. 1).

Out of service

Despite a history of negative experiences, indications of positive change in how paramedics think and act in relation to fatigue were evident. The emerging paramedic workforce was felt to be bringing a more positive attitude toward individual well-being, including fatigue management. Some felt that stigma toward fatigue was less common in new recruits, and that support between peers was improving: "... if I'm working with interns... if they say, 'we can't go to sleep until midnight' [on shift] I say, 'that's a load of shit, just go to bed if you are tired' and I don't judge people for that." (P. 7). It was also thought that younger paramedics are a more receptive audience for implementing fatigue management strategies. Some participants reported being "much more willing to" (P. 13) formally report their fatigue, or 'standing themselves down' during shift: "...[paramedics] are reaching that kind of like 2, 3o'clock in the morning now without a break and they're ringing up saying 'nuh, we're fatigued, we need a break, stand us down'." (P. 28). This change in behaviour appeared to be driven by paramedics recognising they were reaching their limits and embracing the idea of 'we have to look after ourselves'.

The effects of high workload and under-resourcing leading to negative experiences of fatigue were considered drivers of change. Fears around personal health and safety, as well as patient safety, were considered: "I'm also a bit more cut-throat these days because I need to protect myself... if I don't protect my mental health I won't be able to work in healthcare anymore..." (P. 17). In some cases, individual behavioural change appeared to be driving further division between paramedics and their organisations. One participant felt that meaningful change was still to come, and that a system-wide, top-down and supportive approach was the only solution: "I think it needs to change from the top down. So, from our senior managers highlighting that fatigue is an issue and providing support..." (P.24). Another highlighted that behaviour towards fatigue, and more broadly towards self-care, needed to change to maintain the 'image' of a paramedic: "If we want other people to think that we are heroes and the best of the best and actually at the sharp end of what we do, then we need to behave like it." (P. 23).

DISCUSSION

Fatigue was an expected and normalised part of the paramedic identity and role, but for many, effective and consistent management felt like a largely unspoken and overlooked part of the paramedic experience. Paramedic experiences of fatigue were widespread and complex, often shared with an awareness of the potential health and safety implications. Yet, individual attitudes, and related decision making, did not always align with appropriate actions given the safety critical context of paramedic work. Instead, attitudes and behaviours reflected a strained relationship with effective management of fatigue influenced by paramedic identity, the shared experience of managing fatigue within the profession, and perceptions of organisational support and approaches.

Although fatigue is recognised as a complex issue within safety–critical occupations (Lock et al., 2018), our findings suggest that experiencing and sharing 'fatigue' is a sociocultural problem within paramedic workplaces. Fatigue was often worn as a badge of honour, acting as a social signal of competence, endurance and belonging. This meant that paramedic decisions around acting on fatigue were steeped in attitudes related to resilient identities and camaraderie. For some, fear and stigma around being perceived as weak or letting down teammates further drove decisions not to act on high fatigue whilst at work, shaping a culture of self-sacrifice and silent fatigue management. Consequently, not acting on fatigue, or disengaging from the word 'fatigue' itself, has become a justified occupational norm. Similar sociocultural factors, creating barriers to fatigue management, have previously been reported in shift working nurses (Steege and Rainbow, 2017).

Experiences shared in this study suggest that paramedics have learned to adapt to fatiguing work systems and demands in part through covert acts of rest or adjusting the system to manage their needs. Covert fatigue management strategies, such as citing illness rather than fatigue or disengaging with organisational control mechanisms

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appear to act as a practical survival strategy in the context of fatiguing work but also as a means of preserving social capital in an environment where fatigue is stigmatised. These behaviours reflect deeper cultural and structural tensions. Stigma from peers and managers when formally reporting fatigue, along with perceived unsupportive relationships between paramedics and their managers appeared to contribute to an environment where formal fatigue discourse and action came with social risk. Fear of negative repercussions for acting on fatigue further reinforced the perception that a 'good' paramedic is someone who can cope with fatigue. This ideal therefore not only shapes norms and behaviours but also sustains individual rather than collective or systemic fatigue management solutions.

While fatigue management was considered a shared responsibility between workers and organisations, many described a workplace reality in which the burden was perceived to overwhelmingly fall on individuals. Formal organisational approaches, such as policies and fatigue scoring tools, were sometimes viewed as tokenistic, overly complex, or misaligned with lived experience, at times reducing a multifaceted problem to impractical metrics. Rather than enabling fatigue mitigation, these processes were seen by some as administrative obligations, fostering scepticism and further disengagement. Importantly, some described supportive managers who enabled rest and respected fatigue disclosures, generally in regional locations, however others reported pressure to push through fatigue to maintain service delivery.

This inconsistency placed difficult judgement calls about when to act on fatigue on individuals, often without a sense of psychological safety. Perceptions of inadequate top-down support may be further driving disengagement from organisational systems. Conversely, where paramedics reported strong managerial support, they also described more positive engagement with fatigue processes. These findings suggest that visible organisational commitment may promote positive worker engagement with organisational processes and a perception of substantive shared responsibility. Additionally, co-designing fatigue management strategies which resonate with the workforces' lived experience, may improve engagement with formal processes.

Crucially, limited use of formal fatigue reporting may be concealing a larger problem. Where fatigue remains poorly visible to organisations, challenges with effectively reappraising and improving current organisational fatigue management strategies is limited. Unreported fatigue also prevents monitoring of near misses, and mitigation of subsequent fatigue related errors and incidents at the organisational level (Dawson and McCulloch, 2005). Moreover, whether fatigue is contributing to poor well-being, absenteeism or retention issues, which are prevalent among paramedics (Beldon and Garside, 2022), remains unknown. It is important to note that knowledge of formal organisational fatigue management processes among paramedics was limited in our study.

The contributors to limited knowledge were not well understood from this study and should be considered in future work. Beyond the sociocultural issues we describe, possible contributing factors may include inadequate education, lack of worker time or motivation to engage with educational content, or underdeveloped frameworks within organisations (Ferris et al., 2025).

System-level constraints, including resource-constrained health services, high ambulance workload and varied



organisational approaches, also shaped how fatigue was experienced and managed. Working through fatigue was often seen as necessary, but particularly in the context of high workload and low resources. Identity and responsibility influenced an obligation to be present in an emergency situation, even at an individual cost. A sense of duty is one of the key components of the paramedic role identity (Donnelly et al., 2015, Mausz et al., 2022), and it is unsurprising that this informed decisions to act (or not to act) on fatigue.

A well-spoken tension point however, was how working through fatigue to uphold service delivery may be contributing to poor health and safety for paramedics. Indeed, the risks to worker health and safety in not managing fatigue was seen by paramedics as less important than the risk to the public if ambulance resources are not delivered in pre-determined timeframes. In many instances paramedics therefore felt expendable, fuelling attitudes that organisations are not participating in the shared responsibility of fatigue management. This dilemma highlights the complex interplay of paramedic identity and the culture of paramedic work with relatively simple organisational key performance indicators (KPI) common in ambulance settings.

Upholding service delivery at the cost of effective fatigue management can also be considered in light of emergning evidence which suggests that fatigue in paramedic settings is not only a health and safety issue, but also a performance and productivity issue. In a scoping review of first responder groups, Yung et al. (2021) reported that the performance and safety effects of fatigue may reduce operational efficiency and poses a risk to long term productivity, whereby the chronic individual health impacts of fatigue may reduce workforce capacity (Yung et al., 2021). This re-framing reinforces the principle that "healthy worker safety is patient safety" (Shaw et al., 2020) and highlights that organisational performance strategies focussed on KPIs may inadvertently compromise safety and productivity outcomes they are designed to protect. The tension between paramedic identity, organisational KPIs, and constrained resources has invited a broader question: Is a fatigued worker better than no worker? (Dawson and McCulloch, 2005)

While resource constraints and KPIs often drive decisions to maintain service delivery, this approach alone overlooks evidence that fatigue compromises both safety and performance. Ultimately, re-positioning fatigue as a performance and productivity issue may influence organisational prioritization of fatigue management. However, addressing embedded values and cultural norms which equate fatigue with professional legitimacy and worth is critical. Without considering these sociocultural processes, any well-designed fatigue risk management initiatives risk being rejected by the workforce. The role of this study was to understand the paramedic experience of fatigue and describe contributing factors, rather than

Continued >

propose tangible solutions, which represents the next step in the research-practice journey. Broadly, however, findings from this study suggest that improving education on fatigue risk management, fostering supportive organisational cultures that reduce stigma and encourage reporting, and implementing practical, co-designed tools to monitor on-shift fatigue, may provide useful starting points for enhancing both paramedic well-being and patient safety.

Strengths, limitations, and future research

Findings should be considered in light of strengths and limitations. Incorporating participants from jurisdictional ambulance services across Australia was a notable strength. However, findings may be less relevant to jurisdictions where the role, occupation and work conditions of a paramedic may vary significantly. Additionally, recruiting for discussion of fatigue may have appealed more to those with particular fatigue-related experiences, creating a selection bias, however this was addressed as best possible through diverse sampling from the expressions of interest, reflexivity, and transparent reporting. Previous evidence suggests that fatigue in paramedics may result from a wide range of system-level factors (Paterson et al., 2014, Thynne and Rodwell, 2019). As such, input from additional stakeholders are required when considering effective fatigue conceptualisation and management in paramedicine. Our study offers detailed insights from the worker perspective. Future research should incorporate perspectives from management, broader organisational, and even state government levels, to better understand perspectives across system levels. A deeper exploration of the causes, and subsequent consequences, of fatigue from the paramedic perspective is also needed to better understand and inform fatigue management strategies unique to paramedicine.

CONCLUSIONS

This study highlights that paramedic fatigue is not only a recognised safety risk, but also an embedded sociocultural issue shaped by identity, organisational culture, and systemic constraints. Despite awareness of health and safety implications, paramedics often prioritise service delivery over formal fatigue management, which is influenced by a culture of resilience, role duty, camaraderie, and stigma. Consequently, fatigue is normalised, and paramedics have learned to adapt through covert acts of rest. Limited knowledge and trust in organisational fatigue management further hinder engagement and reporting for some paramedics, possibly masking the true extent of fatigue and fatigue risk. Key leverage points for improved fatigue management may include developing co-designed management and education strategies and addressing managerial support and trust. However, without also addressing and challenging the social and cultural norms of fatigue in paramedic workplaces, efforts to reduce fatigue-related risks may be ineffective.

Declaration of generative AI and AI-assisted technologies in the manuscript preparation process

During the preparation of this work the authors used Microsoft CoPilot in order to improve readability and language of the manuscript. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the published article.

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DECLARATION OF COMPETING INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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For a list of references please contact the editor.



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Ten+ years of the Paramedic Observer - a retrospective

The Paramedic Observer has undertaken a brief analysis of health policy and paramedicine commentary and other activities across Facebook, LinkedIn, Twitter/X and Bluesky. Here's what the record shows.

It's been a busy period, and after more than ten years, the record behind The Observer is bigger than any single post: 2,058 Facebook posts, over 15,000 tweets, and multiple briefs and submissions to Commonwealth, state and territory governments.

Stepping back from the day-to-day, a history of this commentary shows some clear and, in places, surprising patterns.

The themes have never really changed. Across the social media platforms with quite different audiences and formats, the same handful of issues dominates. Registration and regulation under the National Law and Ahpra framework; International developments in the UK, New Zealand, Canada and the US; Government inquiries and policy submissions; First-responder mental health and PTSD; Rural and remote access. The five hashtags and keywords (health, emergency, paramedics, paramedicine, ems) land on essentially the same priorities, despite being counted in different ways. These aren't passing news cycles. They're structural problems the profession is still resolving.

Posting less, reaching more. Facebook volume peaked in 2017–2019, averaging around 260 posts a year, and has settled into a steadier rhythm since — roughly 130–140 posts a year through most of 2022–2025, dipping to a low of 90 in 2023. But reach hasn't followed volume downward. Cumulative views in 2025, and again in just the first seven months of 2026, already exceed every prior full year with a record 98,600 views of a single post in March 2026. Fewer, more considered posts are reaching further than the high-frequency years ever did. The audience is heavily concentrated in Australia, with meaningful representation across every state capital — Melbourne, Sydney, Adelaide, Perth and Brisbane all register in double (percentage) figures — alongside a genuine presence in rural and regional Australia, and a smaller but solid international readership in the US, UK, Canada, New Zealand and many more countries across Asia, Europe, Middle East, Oceania and the Americas.

Twitter told a different story — and Bluesky shows where the energy went. Where Facebook's reach has climbed, original Twitter/X output has fallen, from a 2019–2020 peak of close to 1,800 tweets a year to under 1,000 in 2025 — roughly half. A Bluesky account, established 16 November 2024, shows where at least some of that energy went to. Replies to others rose from 14.6% of posts in the account's first weeks to 69.1% through 2025, a genuine shift from Twitter toward more considered and professional conversation on Bluesky. That conversation looks different in kind from Twitter's, too: explicit mentions appear in just 1.4% of Bluesky posts, against 52.2% of original tweets — the engagement is happening through replies within topical threads rather than direct call-outs, a more contained style of discussion than Twitter's tag-heavy habit. Read together, this isn't retreat. It's a deliberate reallocation — less time spent broadcasting on a platform built for volume (and now fostering dissent), more spent in direct discussion on one built for professional input.

What cuts through. Across all platforms, the best-performing content is remarkably consistent in kind, if not in topic. The single highest-reaching Facebook post in ten years covered an NT ambulance service being forced to declare code white — a system visibly buckling under pressure. The next four were an Ambulance Victoria inquiry report, a state Chief Paramedic Officer appointment, a national registration count, and a piece on Australia's

paramedic workforce paradox. On Twitter, the top original tweet by favourites was Dr Louise Reynolds' appointment as Victoria's Chief Paramedic Officer; the most-retweeted was an account of prehospital ECMO performed on the streets of Paris. The pattern holds regardless of platform: readers turn out for evidence that the system is under strain, and for markers that the profession is being taken seriously at a policy level.

A profession beyond the ambulance. One of the clearer shifts across ten years of posts is how much of the coverage now sits outside the ambulance services. Community paramedicine has grown into one of the more consistently covered themes of the decade with 163 Facebook posts, over 500 uses of #community on Twitter — tracking a real shift from "paramedics respond to emergencies" toward a more holistic view of paramedics embedded in general practice, primary care, and preventive health. The archive of recent commentary and submissions reflects the same widening remit: a paramedic-staffed private clinic operating alongside GPs and nurses, industrial and aeromedical paramedics, a submission arguing the case for recognition as an NDIS provider profession, and a sustained push on prescribing rights and extended scope of practice in both Australia and New Zealand. None of that fits the old picture of the job. The coverage has quietly shifted from "is the ambulance service resourced enough" to "where else does this workforce belong."

Leadership roles are multiplying, even if mentions aren't. It's tempting to read ten years of tagging colleagues and quoting sources as a straightforward story of a growing chorus of voices. The data doesn't quite support that framing; the rate at which other accounts engage with Twitter has actually eased slightly since 2020, tracking the social media platform's overall decline. What has genuinely grown is institutional: Chief Paramedic Officer positions, once rare, have been appointed or advertised in just the past eighteen months. Women are increasingly being recognised, and a widening cohort of academics, researchers and practitioners now regularly appears in the coverage in leadership and policy roles rather than purely operational ones. The voices haven't necessarily multiplied — but the seats at the conversation table plainly have.

The advocacy beneath. Social media has never been the whole story. The Observer's public document archive — now catalogued on the website www.paramedprof.com — records 80+ formal submissions and policy papers to government bodies. That work has had its own rhythm, independent of the social feeds: submissions peaked at 11 in 2022, fell across the following three years to a low of 4 in 2025, and has already rebounded to 9 by the middle of 2026. Separately, the author also writes and curates social media commentary for the Australian Health Care Reform Alliance — covering sources like the BMJ, The Lancet and Croakey on topics well beyond the immediate focus on paramedicine, and ranging from the new Australian CDC to rural health funding and vaccine policy. It's mentioned here only because it's relevant to the level of output and where the "bigger picture" perspective in many posts actually comes from and why paramedicine doesn't stand alone.

None of this has been a solo effort. A decade of commentary has drawn constantly on the generosity of co-authors, colleagues, correspondents and quiet contributors across paramedicine, health policy and research — people who have proactively shared information and data, offered a second (or third) opinion on a draft, corrected an error, or simply pushed back when it mattered. The Observer's thanks go to all of them, named and unnamed, who have made ten years of observation possible.

A decade of infrastracture growth. What's changed most visibly in the past year isn't the message — it's what now holds it together. Creation of a purpose-built website has consolidated a decade of scattered commentary, data and formal advocacy into one place for the first time, alongside the beginnings of the Australian Paramedic Workforce Monitor, a longitudinal evidence series modelled on AIHW and Productivity Commission standards, due for its inaugural edition in early 2027. Ten years of ad hoc commentary is becoming a better evidence base for the profession's own story.

What hasn't changed. For all the platform-hopping, the growth in reach, and the widening definition of what a paramedic does, the substance of coverage remains where it was in 2015: paramedicine is still seeking better recognition, funding, and a seat at the table.

If the next decade looks anything like the last, that's likely to remain the developing story — a broader, stronger profession, more people watching, more platforms carrying the message, and the same fundamental cases still needing to be made in the public interest.



Nursing gets a national strategy. Where is Paramedicine?

Published 10 August

ON 6 AUGUST 2026, Federal Health Minister Mark Butler stood before the Australian College of Nursing's (ACN) National Nursing Forum and launched Australia's first National Nursing Workforce Strategy. ***https://tinyurl.com/277sauu9***

The document is 60 pages long, endorsed by every state and territory health minister, and sets out 28 priorities across four themes: enhancing planning, enabling innovation, elevating the profession, and delivering a sustainable workforce ***https://tinyurl.com/2cehwhnv***

ACN called it a long-awaited recognition that the nursing workforce "cannot be left to chance or be subject to fragmented, jurisdiction-by-jurisdiction planning." ***https://tinyurl.com/y2f7sb7n***

That comment resonated with the Observer, as it echoes the comments made time and time again about paramedicine including the Observer's recent submission to the Senate Rural & Regional Affairs & Transport References Committee on Medicare access and funding. ***https://tinyurl.com/mp9s5c7y***

The nursing profession is to be congratulated for achieving this milestone Strategy. The Observer's interest here is not nursing policy for its own sake. It is what the Strategy's existence and the years of process that produced it, says about what paramedicine still needs - a comparable national framework for the paramedicine workforce.

What the Nursing Strategy does

Commentary since the launch has focussed on scope of practice as the Strategy's most substantive content. Minister Butler told the ACN conference he wants primary care nurses to be able to do more "without having to have a GP notionally looking over their shoulder while doing it."

The Australian Primary Care Nurses Association welcomed this comment, citing research that nurses prevented from working to full scope are 59% more likely to burn out. Medical Republic's coverage noted the retention message running underneath the launch: the real driver is a lack of new-graduate (and experienced) roles to absorb them, and early-career nurses losing structured support once qualified. The Observer has made the same point about practitioner retention in paramedicine.

Two features of the policy process are worth noting, because they are the issues paramedicine has always found difficult and where success was pivotal in winning the case for registration.

First is the level of endorsement: every state and territory health minister signed on, which converts the Strategy from a Commonwealth or single jurisdictional aspiration into a document that all jurisdictions have some accountability for implementing.

The second aspect is the scale or duration of the Strategy: this outcome was not achieved in a single budget cycle. Consultation began with a draft version in late 2024, and ran through submissions from various bodies including the Australian Nursing and Midwifery Federation(ANMF). ***https://tinyurl.com/yvzs3uru***

The draft was refined over roughly two years before Thursday's launch with the input from thousands and support from people like the Dean of La Trobe's School of Nursing and Midwifery, Professor Marie Gerdtz, who said the strategy aligned strongly with priorities already informing the University's approach to nursing education, research and workforce development.

"The strategy recognises the importance of strengthening transition-to-practice pathways, supporting professional development, enabling nurses to work to their full scope of practice and fostering positive learning and working environments" she said. The Observer agrees with that sentiment as also being applicable to paramedicine. ***https://tinyurl.com/yc3xndtd***

The two doors, one window problem

Readers of this page will recognise the pattern. Paramedicine is routinely included in generic national health workforce frameworks: named, referenced, nodded to, then left out of the detailed mechanisms that actually move money, roles, or empower and implement scope. The Nursing Strategy supplies a good example of this.

Defining who the document is for, the Strategy says: "Midwives, as a separate and defined profession are not included in the strategy's scope. However, it is recognised many nurses have dual registration as midwives and paramedics, so their perspective on nursing issues and the impact of the strategy on those professions has been considered." However, the Strategy says little that is substantive about paramedicine.

Paramedicine's absence from this Strategy is deliberate, not accidental. It is named, then ignored: the only acknowledged channel for paramedic input runs through dual-registered nurses weighing in on nursing issues, not through recognition of the deep interactions between the two professions.

The Strategy later lists ambulance services alongside public hospitals as something state and territory governments "fund and manage" and "deliver". That's a service line item, not consideration of a workforce with planning needs of its own. Between the two references, the Strategy manages to mention paramedicine twice without once treating it as a collegiate health profession with important service challenges and priorities.

Nursing's new Strategy is a good example of the recognition gap because it shows what the alternative looks like: a profession-specific document, with a profession-specific consultation process, endorsed by health ministers as a profession-specific priority.

Paramedicine realistically has no national footprint equivalent to nursing. It appears inside multi-profession scope-of-practice reviews, inside primary care strategies, inside rural health workforce plans: sometimes named, often not. It features as a one line item among many, never as the subject of a national stand alone plan.

The Nursing Strategy did not have to compete for space inside a broader document. It was written to be about nursing, for nursing stakeholders, with nursing-specific priorities. That is the structural difference the paramedicine profession needs to recognise when the next generic health workforce framework is drafted.

Why the gap persists

The Observer suggests there are structural obstacles that help to explain why paramedicine's equivalent document remains out of sight.

Paramedicine does not sit neatly inside any existing planning category. The Observer flagged its inappropriate ABS/ANZSCO classification as a workforce in 2010/11 but it was only recognised as an independent Level 1 Health Profession in 2024. ***https://tinyurl.com/275zknby***

It shares acute-care overlap with medicine, workforce mechanics with allied health, and jurisdictional funding with emergency services, without belonging fully to any of the three. Straddling the intersection of public health and emergency and community services, generic frameworks default to filing it under whichever heading is convenient, rather than treating it as a category of its own.

Paramedicine’s origins compound the problem. The profession did not emerge as a national occupation but grew out of disparate localised services that became jurisdictional ambulance services, each funded and run independently. The impact of that parochial origin is seen in the special arrangements for registration in New South Wales. The same fragmentation affects both the data collection and the natural policy ownership.

Nursing's Strategy had every state and territory health department feeding a single national picture. Paramedicine has eight dominant and independent employers plus the military, multiple public datasets, limited policy collaboration between the private and public sectors and no Commonwealth body with primary responsibility for looking at the workforce as a cohesive whole.

National regulation arrived late. The Paramedicine Board was only established under the National Law in 2018, a recognition decades after nursing and medicine. Workforce strategies tend to follow mature data, not precede it. That infrastructure is still being built. The Commonwealth employs few paramedics (defence force excepted) and the embedded health policy expertise is heavily drawn from medical, nursing and allied health professionals.

No single paramedic body carries the sustained political weight of the ACN, ANMF or the AMA. Representation is split across the profession and jurisdictional-based unions and employee associations but there is no well-positioned focus to prosecute a national strategy or keep a department's work plan across successive ministers and budget cycles on track. It's a reason why the Observer has consistently called for health policy engagement and why a Commonwealth CPO is so vital.

What the Nursing Strategy gets right, and lessons for paramedicine

Three elements of the Strategy's approach are transferable regardless of profession.

The scope-of-practice framing is shrewd. Rather than opening with a funding ask, the Strategy leads with permission: enabling nurses to do more with the training they already have. This is easier to accept than a wages or headcount commitment, and it is easier to build sector-wide consensus around, which is why "enabling nursing innovation" carries so much weight in the document.

Paramedicine's own scope-of-practice case, particularly around prescribing and community paramedicine, is amenable to the same framing: uplift the level of care through better use of existing and/or upgraded skills, framed as a skills case rather than a funding ask.

The Strategy's retention argument was made in workforce terms. The case costed burnout and attrition as a supply problem with a measurable price tag: the 59% burnout differential, the gap between graduate numbers and graduate roles.

Paramedicine's own retention and burnout data needs to be marshalled the same way, as a workforce-supply and patient-care input that every health minister's department already has to grapple with. That approach is behind the Observer's regular analysis of workforce data.

Two years of consultation looks slow only at first glance. The multi-year, ministerially endorsed process is the reason the document carries the weight it does. A strategy produced quickly, without jurisdictional sign-off, would have been the kind of document paramedicine already has in spades: well-intentioned, unfunded, and often sidelined.

The factor the Strategy hasn't answered

The draft version of the Nursing Strategy initially was criticised for offering no specific plan to increase graduate numbers; for barely mentioning migration as a workforce lever; and for recommendations dismissed by some reviewers as "motherhood statements" without actionable steps. ***https://tinyurl.com/bdetyrdv***

The ACN in pre-Budget commentary for 2026, called on government to fund the Strategy, warning that without proper implementation Australia risks a shortfall of 80,000 nurses regardless of what the document says on paper. ***https://tinyurl.com/3baysazx***

Those observations matter for how paramedicine should proceed. A national strategy, even a well-credentialled one endorsed by every health minister in the country, does not self-execute. Endorsement is necessary but not sufficient and the document still has to survive a budget process. The lesson is not "get a strategy and the problem is solved." It is "get a strategy, because without one there are no benchmarks for a health minister to be held to," and then keep the pressure on the funding question the way the ACN is doing now.

Here the case diverges, because paramedicine is different. Currently there is not a shortage but a perceived surplus of graduates. Nonetheless, there are similar issues of inadequate placements, restricted roles and little funding.

As the Observer mentioned in March, Australia is not short of paramedics. What it risks being short of is paramedic careers. The ultimate question is not simply how many professionals we train, but how we choose to use them. ***https://tinyurl.com/mp9s5c7y***

Lessons for paramedicine

Paramedicine won national registration through engagement with policymakers, not by asking direct employers. Nursing built its case the same way: a long-term argument for a robust, ministerially endorsed plan, backed by its unions, colleges and peak associations, then sustained pressure to get that plan funded.

Paramedicine's task is similar and it starts well before the funding argument: securing a seat at the table with jurisdictional and a Commonwealth CPO is part of a national workforce strategy, not an afterthought.

Until that happens and/or the profession is better engaged, it will keep appearing, being named and respected, and then omitted from national health workforce planning and absent from implementation mechanisms. The second door, visible through the window, will still remain closed.

NZ paramedic prescribing: an update

Published 6 August

Earlier this year The Paramedic Observer covered Te Kaunihera Manapou's formal application to Manatū Hauora for paramedic designated prescribing authority under the Medicines Act 1981 — backed by 88% support across 197 consultation respondents, rising to 92% support among paramedics. Extended Care Paramedics are envisaged as being the first to be endorsed prescribers in a staged rollout. ***https://tinyurl.com/38r95bbt***

That application received Cabinet approval in June. Now the next step has cleared with the Ministry's consultation on the specified medicines list that closed on 5 July, and the final medication details are expected within weeks. 1News Media coverage (18 July): ***https://tinyurl.com/rrfz7mbj***

The next step is to confirm the training and competency requirements — set by Te Kaunihera — which are the final regulatory steps before any paramedic independently writes a prescription. Training arrangements will also require development.

Once gazetted, prescribing sits alongside the ACC PRIME reforms and the Rural Unplanned Urgent Care review as another lever to see paramedics contributing to primary care and rural and community access. ***https://tinyurl.com/3ezyuu9f***

The numbers behind this development are worth considering: 2,796 registered paramedics as at July 2026, 18.1% non-practising, and 15.1% holding a specialist endorsement. Not everyone will want to hold prescribing endorsement and according to an April 2026 Nuffield Trust report on prescribing in the UK, only 7% of UK-registered paramedics held independent prescriber annotation with the Health and Care Professions Council (Nov 2025). On a similar basis, between two and three hundred NZ paramedics may hold prescribing endorsement in future years. ***https://tinyurl.com/ykn9szcy***

Regulatory approval doesn't by itself fix workforce mobilisation or implementation of a new skill set but it's a great start.

Some earlier Observer coverage: ***https://tinyurl.com/28bzxvk5***

Ministers June Announcement: ***https://tinyurl.com/4tf7b7e4***

Ministry of Health consultation: ***https://tinyurl.com/bdpk9dbf***



Northern Territory outlines landmark paramedicine model of care

Published 5 August

NT Health has published a detailed outline of its paramedicine model of care. It is a must read as the first published jurisdictional model that the Paramedic Observer has seen that addresses the mobilisation of paramedics across the health domain.

Under the Territory's Paramedicine Capabilities Framework (2025–2029), paramedics are positioned as transdisciplinary clinicians embedded within health services rather than confined to ambulance response roles. A notable feature is the consolidated governance, regulation and safety framework. ***https://tinyurl.com/jw4pp2j5***

The framework spans urgent care clinics, aged care outreach, remote and prison health settings, and hospital liaison roles, with paramedics delivering advanced assessment, point-of-care diagnostics, chronic disease management and care coordination alongside GPs, nurses and Aboriginal and Torres Strait Health Practitioners.

Two other elements stand out. First, the explicit "home-first" aged care pathway — single point of access, rapid outreach, treat-in-place — aimed squarely at providing better care and reducing avoidable ED presentations among older Territorians.

Second, the framework's advanced

capability domains, which name clinical leadership, governance and system navigation as core to the paramedic role, not optional extras.

The Observer is pleased to see this leadership by NT Health and will be tracking the development to see how the framework translates into funded positions and scope-of-practice authority on the ground.

Sincere congratulations to the staff of the Chief Paramedic Officer and a proactive NT Health Department leadership who have worked tirelessly to achieve this landmark outcome.

The Observer strongly encourages all Australian states and territories to take a hard look at the NT development that facilitates the direct employment of paramedics within health.

For some jurisdictions to catch up, that may require legislative change and political will, but above all, it needs a genuine commitment to multidisciplinary care in better mobilising an often overlooked health profession.

Read more here: ***https://healthjobs.nt.gov.au/explore-health.../paramedicine***

AMA Ambulance Ramping Report Card 2026

Published 23 June

"No patient should be left waiting in an ambulance or a hospital corridor because of systemic bottlenecks that compromise care and put lives at risk." — AMA President Dr. Danielle McMullen

The AMA has released its Ambulance Ramping Report Card 2026. In 2024–25, nearly 4.5 million ambulance incidents were recorded nationally — a record high. More than 2.4 million people arrived at emergency departments by ambulance, with over half of all callouts ending in a hospital presentation.

That's a modest improvement on last year and is welcome. But ambulances are still spending significantly more time ramped outside hospitals than five years ago in every state and territory.

What's the state of play (based on AMA Report data not ROGS):

- South Australia — 45.7% transferred within 30 min (target: 90%). Down 18 points over five years. Hours ramped has more than tripled since 2019–20.
- Western Australia — 65% transferred within 30 min (target: 100%). Hours ramped up 30% to ~63,000. September 2025 was the worst month on record.
- Queensland — 59% transferred within 30 min (target: 90%). Target not met in 10 years. Total hours ramped: ~116,000, down from ~157,000 last year.
- Victoria — 68% transferred within 40 min (target: 90%). Average clearing time 31.4 minutes. Last on target: 2019–20.
- NT — highest ambulance use per capita nationally. 68.3% transferred within 30 min, a 4-point drop. Hours ramped rose to 9,773.
- NSW — 80% transferred within 30 min (target: 90%). Up 2 points, but target not met since 2018–19.
- Tasmania — 85.7% transferred within 60 min (average target: 95.4%). Reporting methodology changed mid-year.

The ACT reports turnaround time, not transfer rate. Median: 39.8 minutes in 2024–25, up 12.7% over four years. The slowest 10% of cases took 64.8 minutes.

No state or territory met its transfer target in 2024–25.

The key factors remain virtually unchanged:

— Exit block: patients cleared for discharge can't leave due to gaps in aged care and disability support

— Under-resourcing: demand is outpacing hospital and ambulance capacity across every jurisdiction

— Inconsistent data: each state measures ramping differently, making true national comparison unreliable.

The AMA continues to call for:

— A new National Health Reform Agreement

— More beds, more staff, better patient flow

— A nationally consistent minimum dataset for ambulance ramping

The Observer has made similar recommendations in recent policy submissions, and the data confirm what frontline workers have been reporting for years. For comparison, see the commentary on the 2023 AMA Report: ***https://tinyurl.com/5n8ezx5h***

Full 2026 AMA report: ***https://www.ama.com.au/.../AMA_Ambulance_Ramping_Report...***

Kings Birthday Honours 2026

The Ambulance Service Medal (ASM)



Ambulance Service Medal

AMBULANCE SERVICE MEDAL (ASM)
For distinguished service as a member of an Australian ambulance service.

NEW SOUTH WALES
Andrew Mayer

Mr Andrew Mayer has delivered exceptional service throughout his 39-year career with NSW Ambulance, contributing to some of the state's most complex and high-risk operations. He played a critical role in Strikeforce Durkin, assisting an injured NSW Police officer while under extreme danger. Mr Mayer has led and supported numerous Special Operations deployments across Australia, including major bushfires and flood-rescue operations in NSW and Queensland, consistently demonstrating exemplary leadership, clinical skill and a commitment to team safety. As special operations team leader during the Martin Place Siege, he coordinated the NSW Ambulance response alongside NSW Police Tactical Units and provided frontline medical care. He has also been instrumental in developing NSW Ambulance's Special Operations and flood-rescue capabilities, shaping training, governance and rescue operations, and mentoring generations of Special Operations paramedics. Mr Mayer's dedication, professionalism and courage exemplify the highest values of NSW Ambulance.

QUEENSLAND
Sandra Osbourne (Gawn)

Ms Sandra Osbourne (Gawn) commenced her career with the Queensland Ambulance Service (QAS) as an honorary ambulance officer in 2002 and has progressed to her current role as the director of the Townsville District. Ms Osbourne has taken on senior clinical roles where she has provided the highest level of frontline leadership, advice, professional development and clinical expertise to the broader paramedic cohort within her area of operations to achieve the best outcome for patients in what can be challenging circumstances. Ms Osbourne attended numerous significant incidents between 2004–2025 and has undertaken command roles at the scene of multi-casualty incidents. In addition, she has held leadership roles within the Regional Ambulance Coordination Centre and deployed to assist the Local Disaster Management Group and District Disaster Management Group during significant weather events in North Queensland.

During her time as the officer-in-charge at the Kirwan Ambulance Station and Northern Beaches Ambulance Station, Ms Osbourne successfully oversaw the decampment of the Kirwan Ambulance Station and continuation of service delivery from a temporary site to allow for the construction of the new station. She has also contributed significantly to the delivery of ambulance services and community preparedness through her work with local ambulance committees and is dedicated to the promotion of the QAS and cardiopulmonary resuscitation awareness in the community.

In addition, Ms Osbourne has been involved in numerous community programs including the RACQ

Docudrama road safety program, including school visits to talk on the effects of drug use, and coordinated resources for re-enactments and scenarios conducted at schools and community events. Ms Osbourne is a patient-focused leader experienced in all facets of ambulance service delivery and is an exemplary professional QAS officer who is highly regarded by the Queensland community, the QAS and colleagues.

Vanessa Schafranek

Ms Vanessa Schafranek has been delivering pre-hospital care to the Queensland community since she started with the Queensland Ambulance Service (QAS) as a student paramedic in 2002. She has now progressed to her current role as officer in charge of Tully Ambulance Station in the Far Northern Region. Ms Schafranek has continually demonstrated her ability to support and lead her community through multiple natural disasters by ensuring the continuity of pre-hospital care. As a frontline operational officer, she has been involved in the preparation, response and recovery of numerous disaster events, such as Tropical Cyclone (TC) Larry in 2006, TC Yasi in 2011, TC Ita in 2014, TC Debbie in 2017, and most recently TC Jasper in 2023.

Ms Schafranek often represents and supports the QAS director at the Cassowary Coast District Disaster Management Group and Innisfail Local Disaster Management Group. She has been instrumental in developing local procedures that assist districts to prepare for natural disasters. These procedures have also been utilised to upskill and train supervisors for natural-disaster preparation across the region.

In addition to Ms Schafranek's efforts during disasters, she continues to exemplify the characteristics of a frontline operational leader. She leads by example, supporting upper management while mentoring and guiding up-and-coming leaders in the region. Throughout her career, Ms Schafranek has gained the trust and support of the community through active community engagement, working until recently as a peer support officer, and remaining active in ensuring positive welfare, wellbeing and psychological health in the workplace.

Throughout Ms Schafranek's more than 23 years of service to the Queensland community and QAS, she has made significant contributions that ensure a high level of pre-hospital care is delivered to patients on every occasion.

Krystal Smith

Ms Krystal Smith commenced her career in 2010, as an ambulance attendant with the Queensland Ambulance Service (QAS). She became the first qualified identified paramedic in the service after graduating from the QAS Indigenous Paramedic Program (IPP) and has served in a range of frontline roles, including at Normanton in the Northern Region where she held the position of officer in charge. She is currently serving as the director of the Torres and Cape District. Throughout her career, Ms Smith has delivered paramedic services to various remote communities in Northern Queensland.

This has exposed her to numerous challenging and confronting clinical situations where she not only supported her community but led operational responses during natural disasters such as the 2019 North Queensland floods. She has consistently demonstrated the ability to overcome the unique challenges posed in remote areas and provide a high level of critical pre-hospital care to patients in these remote parts of the state.

Ms Smith has been an integral part of several key projects, such as the Cape York Project and the review of Cape York operations. This resulted in the delivery of a dedicated ambulance in 2025 to service the Hope Vale and Mapoon communities. Ms Smith has also trained paramedics on how to deliver the Stop the Bleed program to communities in traditional languages, which has been enthusiastically embraced by patients and community members across the Northern Region. Through her work, Ms Smith is helping improve the health equity in Aboriginal and Torres Strait Islander communities.

Ms Smith is regarded as an inspirational leader and Aboriginal and Torres Strait Islander ambassador for the QAS. She has played a pivotal role in overseeing and implementing several significant organisational policies, all of which reaffirm QAS's commitment to co-designing culturally respectful and responsive services for Aboriginal and Torres Strait Islander communities.

WESTERN AUSTRALIA

Deane Coxall

Mr Deane Coxall has provided more than 13 years of service to St John Ambulance Western Australia, contributing across operational, clinical and leadership domains. His career is marked by a commitment to patient care, clinical governance, digital transformation and the development of advanced capabilities that strengthen ambulance services across Western Australia.

A cornerstone of Mr Coxall's career has been his leadership in developing Clinical Resources (CR), St John Western Australia's digital Clinical Practice Guideline platform. Replacing

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static PDF-based documents with a mobile-first system, CR improved access to real-time clinical information, which has strengthened evidence-based decision-making, improved consistency of care across geographically dispersed operations and ensured rapid dissemination of critical updates. Its impact was especially pronounced during the COVID-19 pandemic, when it facilitated timely communication of evolving guidance to staff and volunteers statewide.

The platform's structured checklists and integrated reference remain vital to clinician support and patient safety. Mr Coxall's contributions extend beyond digital innovation. He has demonstrated significant leadership in reviewing and enhancing clinical equipment, including the statewide implementation of the Laerdal Compact Suction Unit 4 across all emergency vehicles – an initiative that improved operational consistency and frontline capability. He has also played a pivotal role in optimising clinical processes within the State Operations Centre (SOC), notably through the development of an Addison's Registry that streamlined access to life-saving medications, improving outcomes for vulnerable patient cohorts.

Mr Coxall now serves as manager, Specialist Operations, overseeing the Paramedic Special Operations (PSO) team, an elite capability that responds to high-risk and complex environments including hazardous materials, confined-space and vertical rescue, and multi-agency disaster operations. He has been instrumental in ensuring the team is well-prepared, appropriately trained, and integrated into state-level emergency response frameworks through strong collaboration with the Department of Fire and Emergency Services, WA Police and other agencies. His efforts have enhanced interoperability, safety, and operational readiness across some of the most hazardous scenarios encountered by frontline crews.

Karen Hollings

Ms Karen Hollings has served St John Ambulance Western Australia for over 21 years, consistently demonstrating exceptional resilience and leadership. She has faced prolonged exposure to hazards throughout her career, including multiple traumatic events and high-acuity emergencies. In 2014, Ms Hollings suffered serious injuries that required several surgeries, extensive rehabilitation, and treatment for PTSD. Despite these challenges, she returned to full operational frontline duties in 2020, exemplifying courage and commitment to service.

Ms Hollings has participated in significant deployments, delivering advanced clinical care under pressure and supporting teams during major incidents. Her ability to remain calm and decisive in critical situations has saved lives and upheld the highest standards of paramedic practice. Beyond her operational excellence, Ms Hollings has implemented and facilitated programs that provide enduring benefits for frontline personnel. Most notably, she founded Dogs for First Responders, a pioneering initiative that uses therapy dogs to support the mental health of emergency service workers.

The program now includes five dogs and experienced handlers trained in mental-health first aid, offering comfort and connection during traumatic events. The program is endorsed by clinical experts and senior leadership, featured on ABC Radio and in The West Australian, and recognised as an innovative approach to wellbeing. Ms Hollings also serves as a wellbeing supporter, mentoring colleagues, and advocates for mental health awareness.

Her community contributions include supporting women through the Pink Belt Project, teaching karate for over 20 years to build confidence in youth. Ms Hollings's operational, innovative, and community-focused contributions have delivered measurable and lasting benefits for frontline personnel and the wider community.

Ms Hollings has been a source of inspiration for many individuals who have experienced stress and mental health challenges. Her resilience and determination have motivated numerous colleagues to persevere through professional and personal hurdles. Her ability to recover from injury and adversity, and to channel those experiences into meaningful support programs and community initiatives, has been widely regarded as exemplary.

SOUTH AUSTRALIA

Ian Debono

Beginning his career as a paramedic, Mr Ian Debono has held multiple clinical and frontline roles, delivering a sustained, outstanding and transformative contribution to the SA Ambulance Service (SAAS) and the broader health system. Mr Debono has had a profound and enduring impact on the education, development and clinical capability of SAAS.

As a frontline paramedic, Mr Debono goes above and beyond, providing compassionate care even in the most challenging and emotionally confronting circumstances, often as a solo emergency responder, managing

complex clinical risks and navigating high-stress environments. Mr Debono has an exceptional ability to connect with patients and their families, understanding their needs beyond clinical care. During times of crisis, he has supported patients and their families with domestic and personal needs, as well as providing sensitive end-of-life care and support.

Mr Debono's commitment to high-quality education has set the foundation for the standards of clinical practice SAAS provides to the community today. Widely regarded as one of the most holistic and effective teachers within SAAS, his expertise continues to underpin ongoing quality improvement and assurance activities, ensuring SAAS consistently meets national safety and quality standards.

As well as his full-time frontline role, Mr Debono contributes hundreds of volunteer hours to support training, clinical development and post-case reflection. His ability to support a broad range of clinicians, from new graduates through to senior personnel, demonstrates his exceptional clinical insight and dedication to building capability across the organisation. Mr Debono's remarkable clinical abilities, sustained leadership, educational excellence and unwavering support of SAAS clinicians represent an outstanding and lasting contribution to the organisation and the community of South Australia.

Elizabeth Noom

Mrs Elizabeth Noom is a volunteer ambulance officer based at Moonta Ambulance Station, providing frontline ambulance services to her local community. Her reliability and willingness to step in whenever needed, often at short notice to ensure the community is never without the emergency medical support it may need, are to be commended.

During the COVID-19 pandemic, Mrs Noom continued to undertake her operational duties to ensure continuity of ambulance response, demonstrating the deep personal level of care and commitment she has to the SA Ambulance Service (SAAS) and to her community. Mrs Noom also offers invaluable assistance to the station management team, supporting a range of operational and administrative functions that are essential to the effective running of a volunteer-based emergency service.

Beyond her frontline clinical responsibilities, Mrs Noom has made substantial contributions to the development and cohesion of the volunteer workforce, mentoring new members by providing steady guidance, reassurance and practical support as they transition into the demands of pre-hospital care. With her exceptional leadership skills, compassion, professionalism and unwavering dedication to SAAS and the South Australian community, Mrs Noom embodies what it is to be a SAAS volunteer.

TASMANIA

Margaret Chilcott

Ms Margaret Chilcott commenced service with Ambulance Tasmania as a volunteer ambulance officer (VAO) in May 2012, serving in the rural communities of Poatina, Longford and Campbell Town. She continues to serve actively in this frontline role, where VAOs are frequently the first responders to emergency incidents in isolated areas. In addition, she has served as a volunteer coordinator for the Poatina Community Emergency Response Team (CERT) since 2012, leading a rapid-response capability designed to deliver immediate life-saving care until ambulance crews arrive.

She also undertakes ongoing duties as a mentor to new VAOs, supporting capability development across multiple rural locations.

Over more than 13 years of sustained service, Ms Chilcott has responded to time-critical emergencies in complex and high-risk rural environments where early intervention is vital. As a VAO and CERT coordinator, she regularly manages emergency scenes, delivers basic life support, operates emergency vehicles, and stabilises patients under pressure until paramedic crews arrive.

Her leadership of the Poatina CERT ensures readiness, equipment preparedness and rapid concurrent dispatch, significantly reducing time-to-care in remote communities. Her frontline contribution is exceptional in scale and longevity, with more than 54,000 volunteer hours dedicated to Ambulance Tasmania. Beyond direct response, Ms Chilcott has made a substantial organisation-wide contribution.

Through the Volunteer Ambulance Officers Association of Tasmania (VAOAT), she strengthens statewide volunteer representation, supports policy development, contributes to training initiatives, and advances outcomes arising from the 2024 Memorandum of Understanding between VAOAT and Ambulance Tasmania. She has also provided critical volunteer insight through the Fleet and Equipment Advisory Committee and the Volunteer Education Program Working Group, improving safety, access and consistency for volunteers statewide.

Ms Chilcott's extraordinary commitment, frontline service, community leadership and sustained advocacy exemplify the highest

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standards of volunteer emergency service.

Michelle Izard

Ms Michelle Izard commenced service as a frontline paramedic with Ambulance Tasmania on 2 May 2011, beginning her career responding to emergency medical incidents across the community. Since that time, she has served in a variety of frontline and operational leadership roles, including as a duty manager and deployment supervisor in the Communications Centre, both of which carried significant real-time operational risk management responsibilities.

She also served as the manager of the State Operations Centre and as the acting director of Critical Care and Retrieval, positions central to coordinating high-acuity emergency responses across the state. She is currently the manager of Integrated Care and is undertaking a secondment as the senior change manager and functional panel chair for the AePCR Project, Bluegum Health Transformation. Throughout her career, Ms Izard has delivered exceptional service across high-risk operational environments. Her grounding as a frontline paramedic provided deep insight into the realities faced by road crews, shaping a leadership style centred on accountability, calm command presence, and unwavering commitment to supporting those in frontline roles.

In the Communications Centre she guided teams through critical incidents, surging demand, and complex interagency operations, ensuring safe, timely, and coordinated emergency responses. Her work in critical care and retrieval further demonstrate her capability in leading high-performing teams who work in high-acuity, high-pressure environments requiring precise clinical and operational judgement.

In addition to her operational leadership, Ms Izard has driven major system-wide reforms through five significant organisational projects spanning GoodSam, Helicopter Emergency Medical Services, operational restructure and rostering, statewide medication management, and implementation of the new electronic Patient Care Record system. These initiatives have modernised service delivery, strengthened clinical governance, and directly improved safety and efficiency for frontline staff.

Ms Izard's combination of frontline service, operational command leadership, and sustained organisational reform demonstrates her outstanding contribution to emergency health services.

Garry White

Mr Garry White commenced his frontline service with Ambulance Tasmania as an intensive care paramedic in the Southern Region in 2006, a clinical role in which he continues to actively practise. In 2009, he expanded his frontline service as a rotary intensive care flight paramedic, responding to high-acuity emergencies in complex and remote environments. Since that time, Mr White has progressed through a series of senior operational and leadership roles. He currently serves as the director of Operations for the Southern Region and is responsible for the welfare and performance of paramedics and volunteers.

Throughout his career, Mr White has made significant contributions across both frontline and executive domains. His leadership in critical care, retrieval medicine, and helicopter operations has directly improved system capability and patient outcomes. As the management lead for the 2016 review of Tasmania's helicopter services, he identified key clinical and operational risks and designed a new model for a high-acuity Helicopter Emergency Medical Service (HEMS).

He then led the implementation of Tasmania's first fully integrated critical care HEMS, securing funding, building systems and infrastructure, and leading contract and workforce development. Under his leadership, response capability improved from a single-paramedic response in 52 minutes to a doctor-paramedic intensive care team available within 10 minutes.

Mr White also played a critical role in the Hillcrest disaster, coordinating statewide retrieval resources to maximise survival outcomes. His leadership of the Early Access to Defibrillation Program delivered a world-first system connecting community automated external defibrillator to emergency services, directly contributing to multiple documented patient saves.

As an ambulance commander during the COVID-19 pandemic, Mr White established and led the Emergency Operations Centre, providing statewide operational direction, strategic planning, and interagency coordination during a period of unprecedented risk. Mr White's combination of frontline service, high-stakes emergency leadership, and transformative system improvements has made a significant and enduring contribution to Ambulance Tasmania.

Revised Supervised practice framework supports modern, flexible supervision

AHPRA and the National Boards have published a revised Supervised practice framework and launched a new Supervised practice hub to venable a more flexible and contemporary approach to supervision while maintaining strong safeguards for the public.

Feedback gathered through public consultation, focus groups and targeted stakeholder engagement helped shape a range of improvements designed to support supervisors and supervisees, make supervision arrangements clearer and more consistent across professions, and in a range of practice settings.

Key updates to the framework include:

• updated supervised practice level definitions

• expanded use of virtual supervision in approved Level 2 arrangements

• improved guidance on multi-supervisor and interprofessional supervision models

• strengthened guidance on risk and decision-making

• new content addressing wellbeing and psychological safety.

The new supervised practice hub brings together resources, guidance materials, templates, supporting documents, transition arrangements and practical information in one location, making it easier for health practitioners to access the information they need.

Ahpra Executive Director, Health Workforce, Helen Townley said the revised framework supports modern supervision arrangements while maintaining Ahpra and National Boards' commitment to public safety.

'The revised framework supports a more contemporary approach to supervised practice by allowing greater flexibility where it can be implemented safely and appropriately.'

'The revised framework is an important part of our response to the Kruk review recommendations and supports a growing health workforce in Australia by having a regulatory system that is adaptable, and focused on the needs of health practitioners, health service employers and the community.'

The revised framework delivers Recommendation 15 of the Kruk review, which recommended a more flexible, risk-based approach to supervision that supports workforce participation while maintaining public safety.

A transition period will apply until 21 September 2026. Practitioners currently practising under supervision can continue using their existing approved supervised practice plans while transitioning to updated documents and resources.

Access the supervised practice framework here: https://www.ahpra.gov.au/Resources/Supervised-practice/Supervised-practice-framework

Access the supervised practice hub here: ***https://www.ahpra.gov.au/Resources/Supervised-practice***

FOAMed HIGHLIGHTS

September 2026 – The Resus Room: Papers of the Month

Podcast

A very practical evidence update covering post-prehospital-RSI sedation, NEWS vs shock index in trauma, and rocuronium dosing/first-pass considerations. Excellent monthly listening for clinicians wanting recent evidence translated into prehospital and resus practice. (Spotify)

Access here: **https://open.spotify.com/episode/7eaHHoDLinj9wNz24hfiir**

Clinical Updates: August 2026 – Clinical Conversations / Ambulance Victoria

Podcast

Australian paramedic-focused update covering 2026 clinical practice changes, respiratory illness, avian influenza, calcium-gluconate compatibility, dual-sequential/vector-change defibrillation, RSI checklist changes, cricothyrotomy equipment and STEMI care. Particularly relevant to Australian practice.

Access here: **https://podcasts.apple.com/au/podcast/clinical-conversations/id1557773702**

Talking Research: Quality and Safety in Focus – Australasian College of Paramedicine

Podcast

A 47-minute discussion with Robin Pap examining quality and safety in paramedicine. Useful for clinicians interested in patient safety, quality improvement and translating research into frontline paramedic practice. Released 18 August 2026.

Access here: ***https://paramedics.org/podcasts***

The Resus Room – August 2026 Papers of the Month

Podcast

Reviews recent evidence on prehospital interventions and scene time, conservative oxygen targets after cardiac arrest, and diagnosis of necrotising soft-tissue infection. Particularly good for critical appraisal and deciding whether new evidence should actually change practice.

Access here: **https://zeno.fm/podcast/the-resus-room/episodes/august-2026-papers-of-the-month**

EM Evidence – Emergency Medicine Evidence Rundown

Evidence summary

A continuously updated open-access evidence resource. The September 2026 material includes dedicated emergency medicine, major trauma, and anaesthetics/ICU evidence rundowns, making this particularly useful for rapid literature surveillance.

Access here: ***https://emevidence.org***

Influence of team size on the efficiency of time-critical ALS interventions in prehospital cardiac arrest

Research

Open-access multicentre simulation study involving 210 ALS-trained paramedic students. Examines whether larger EMS teams improve the speed and efficiency of invasive ALS procedures during cardiac arrest—highly relevant to crew configuration and resuscitation systems.

Access here: ***https://www.sciencedirect.com/science/article/pii/S2666520426001694***

FOAMed HIGHLIGHTS

The impact of interdisciplinary cardiac arrest teams on paramedic practice

Research

Qualitative study of NSW Ambulance paramedics working alongside a specialist OHCA ECPR team. Explores how exposure to interdisciplinary cardiac-arrest teams influences paramedic clinical practice, learning and professional development. Particularly relevant to advanced resuscitation systems.

Access here: **https://www.sciencedirect.com/science/article/pii/S2666520426001025**

New and emerging drivers of ambulance demand

Research

Australian research examining changing factors driving ambulance demand. Highly relevant for paramedic service planning, workforce requirements, system pressures and understanding why ambulance utilisation is changing. Open access through PubMed Central.

https://pmc.ncbi.nlm.nih.gov/articles/PMC13134117/

Future perspectives in prehospital emergency medicine

Review/Commentary

Open-access overview of where prehospital emergency medicine is heading, including changing clinical demands, resource constraints and system development. Useful as a broad strategic read for senior clinicians, educators and researchers.

Access here: ***https://link.springer.com/article/10.1186/s13049-026-01590-9***

Paramedics: A Missing Workforce in Australia's Mental Health System

Commentary

Australian perspective on the expanding role of paramedics in mental-health care, particularly in rural settings. Makes a strong case for recognising paramedicine within the broader mental-health workforce and is relevant to contemporary scope-of-practice discussions.

Access here: ***https://pmc.ncbi.nlm.nih.gov/articles/PMC13172659***

Digital cross-sectoral training with dynamic patient and situation simulation for mass-casualty incidents

Education

Explores digital simulation and dynamic patient/situation modelling for multidisciplinary mass-casualty training. Useful for paramedic educators, emergency departments and disaster-management teams looking for scalable simulation approaches. Published August 2026 and fully open access.

Access here: ***https://www.frontiersin.org/journals/disaster-and-emergency-medicine/articles/10.3389/femer.2026.1931354/full***

Case of the Month 2026 – EM:RAP HD

Video Cases

A series of freely accessible emergency-medicine case videos. The September case involves a critically ill patient with altered mental status who develops hypotension and hypoxaemia after intubation, with discussion of differential diagnosis and bedside troubleshooting.

Access here: ***https://www.emrap.org/hd/playlist/video-podcasts/case-of-the-month/com2026***



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AUSTRALIAN PARAMEDIC

Writing an article for Australian Paramedic

Australian Paramedic welcomes articles from paramedics across Australia and internationally – you too can become a part of this exciting new journal!

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- Clinical review, report or discussion;
- Case study;
- Management in emergency medical services;
- Occupational health and safety;
- Opinion pieces;
- General health, psychology or law relevant to emergency medical services;
- Any other article or knowledge that you would like to share that is relevant to the Australian Paramedic.

Lead authors of published articles will be paid for their submission. Payment amount will vary depending on type of article, length, and inclusion of images. Payment will also be considered for submission of images, independent of any article, but it is up to the photographer to ensure that all relevant permissions are sought.

Getting published in Australian Paramedic

DO YOUR HOMEWORK

The key to having your article published is to do your homework first, and ensure your writing is targeted to our journal. Knowing the target audience is imperative, and an essential first step. For us, we are looking for articles with good content and information relevant to paramedics in Australia.

This does not mean we will limit our information only to Australian content... far from it. There is also a lot to learn from methods and processes used internationally, and we will endeavour to include such information in our journal too. What we do want is current information that provides updates relevant to emergency medical care.

DISCUSS WITH THE EDITOR

Discussing ideas and proposals with the Editor can be a great way to ensure that you do not waste your time. Our Editor is very happy to receive enquiries and provide advice on an approach for an article or identifying areas of key interest for our journal. All you have to do is drop a line or two to *amy@ausparamedic.com.au*

GRAB THE READER'S ATTENTION

It is essential to grab the attention of the reader in the first paragraph of the article – by providing a catchy phrase, or simply giving an interesting snippet of what your article will be talking about. After that, good flow, grammar and punctuation is essential as well, to keep our readers engaged.

PROVIDE SOME GREAT PHOTOS

Photos also are a great way to grab attention, and they make up a crucial part of articles in our journal. Photos can be submitted as separate files, with ideally a resolution of at least 300dpi. However, it is up to you to ensure you have the permission of people appearing in the photo for publication.

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