

We are delighted to write this editorial for the second issue of Volume 11. In this issue, the *International Journal of Emergency Services (IJES)* is publishing thirteen original articles that explore a range of subjects relevant to the three main emergency services (ambulance police and fire). It includes important themes such as mental health and stress patterns, decision-making, use of lights and sirens (L&S), pre-arrival information and support available to emergency medical services (EMS) frontline responders; fatigue and shift pattern in the police; the issue of leadership, informal peer support in the fire services including alcohol and drug related fire injuries and multi-agency collaboration in dealing with underground tunnel incidents. These papers seek to close the information gap by making significant contributions to the emergency management literature and the way we view the role of emergency management practitioners.

In our first article, entitled “Mental health patterns during COVID-19 in emergency medical services (EMS)”, Silvia Monteiro Fonseca *et al.* have explored the patterns of EMS personnel’s mental health regarding their levels of anxiety, depression and stress during COVID-19 pandemic. The study analyzed over 200 surveys completed by EMS personnel in Portugal, who answered the Patient-Health Questionnaire, Perceived Stress Scale (PSS), COVID-19 Anxiety Scale, Obsessive-Compulsive Inventory, Well-Being Questionnaire and COVID-19-related questions. The study findings explored EMS personnel’s patterns of mental health during the COVID-19, as well as its covariates. Results allow to better prepare emergency management, which can develop prevention strategies focused on older professionals, COVID-19-related fears and how personnel assess security measures. Study findings have clear implications for staff working in other domains.

Allyson Oliphant *et al.* in their paper, entitled “At the front of the front-line: Ontario paramedics’ experiences of occupational safety, risk and communication during the 2020 COVID-19 pandemic,” have explored the impact of the pandemic on a sample of Canadian paramedics. Their study aimed to determine on what bases paramedics in this context have defined themselves as feeling safe or at risk while serving on the front lines role. This qualitative study consisted of semi-structured interviews with primary care paramedics (PCPs), advanced care paramedics (ACPs) and critical care paramedics (CCPs) with first-hand experience responding to the COVID-19 pandemic in Ontario province. The study highlighted several stress factors which are related to personal protective equipment (PPE) and equipment access, risks of infection to self and family, communications and feelings of being systematically under-considered. The study recommendations from this research include, but are not limited to, ensuring a more equitable distribution of protective equipment to paramedics across unevenly funded services and recognizing paramedics face unique and additional stressors in public health emergencies.

Ellen Ceklic *et al.* in their interesting paper, entitled “Can ambulance dispatch categories discriminate traffic incidents that do/do not require a lights and sirens response?”, argue that traffic incidents vary considerably in their severity, and the dispatch categories assigned during emergency ambulance calls aim to identify those incidents in greatest need of a L&S response and argue whether dispatch categories could discriminate between those traffic incidents that do/do not require an L&S response. The study was a population-based retrospective cohort study of traffic incidents attended by St John Western Australia (SJ-WA), in Perth, Western Australia. The paper makes a unique contribution as it considers traffic incidents not as a single entity but rather as a number of dispatch categories which has practical implications for those EMS dispatching ambulances to the scene with and the findings have relevance for services in different settings as well.



Our fourth paper is on a related theme of decision-making by frontline ambulance commanders. Alan Slater in his article, "How ambulance commanders manage a mass casualty incident," highlights the usefulness of precise guidance for first responders to decide on the correct treatment promptly with an appropriate resource without incurring any further harm. In the absence of firm operational guidelines, this paper provides templates for ambulance commanders both at emergency call-center and on-site to approach the management of mass casualty incidents. The paper makes a case for simple digital real-time templates from which assists the responders in their role and how the overall plan defines priorities with the greatest need which will also be helpful for organizational learning and in any post-event review.

We continue with the theme of ambulance services in our next article. In their study, titled "Exploring the structure and characteristics of the Anglo-American paramedic system in developed countries: a scoping review," Timothy Makrides *et al.* attempt to map and examine the existing evidence to provide an overview of what is known about the structure and characteristics of the Anglo-American paramedic system in developed countries. This study identified a limited body of literature on the exploration and modernization of the Anglo-American paramedic system and how this system is influenced by its various micro and macro factors such as leadership, education and self-regulation status. While a well-established body of commentary regarding the directive model of paramedicine exists, the paper highlights significant gaps in the literature seeking to explore the newly discussed professionally autonomous paramedic systems.

Our next article deals with the uniqueness of the pre-hospital setting and the need for quick decision-making confronts pre-hospital emergency personnel with various moral conflicts that can lead to moral distress (MD) in them. Mojtaba Jafari *et al.* in their paper, entitled "Development and validation of moral distress scale in pre-hospital emergency service providers," attempt to design a valid scale for the assessment of MD in EMS staff. Using an exploratory mixed-method study among the EMS provider's community in Iran, the study has developed a 20-item scale reliable scale for the assessment of the MD in EMS providers. This is a useful contribution to assess MD in the pre-hospital settings which is characterized by emotional trauma.

Toby Keene *et al.* in their experimental study, entitled "Dispatch information affects diagnosis in paramedics: an experimental study of applied dual-process theory," explore the relationship between the initial impression based on pre-arrival information and the final diagnosis by analyzing the study factors associated with the final diagnosis including the effect of congruent and incongruent information on final diagnosis. Research participants were 65 practicing paramedics employed by an Australian Government ambulance and 83 students studying an accredited undergraduate paramedicine degree at an Australian university. The study shows that pre-arrival information can potentially mislead paramedics. Across all participants, final diagnosis of acute coronary syndrome (ACS) dropped from 85% when exposed to likely pre-arrival information to 74% in the unlikely pre-arrival condition. This effect was most pronounced in paramedics with greater than 14 years' experience where diagnosis of ACS dropped from 94% to 67%, depending on the pre-arrival information seen. Being one of the few experimental studies of diagnostic decision-making in paramedics and paramedic students, study findings have implications for the wider paramedic practice.

Our eight article, "Evaluating the effectiveness of the fatigue and shift working risk management strategy for UK home office police forces: a pilot study," by Lois James, Stephen James and Ian Hesketh evaluates the effectiveness of a fatigue-management training and sleep health promotion intervention in a sample of officers from UK Home Office Police Forces. The study used validated instruments such as the Pittsburg Sleep Quality Index (PSQI), the World Health Organization Quality of Life (WHOQOL) instrument, the Epworth Sleepiness Scale (ESS), the PSS and the post-traumatic stress disorder (PTSD) checklist on a

---

sample of UK police officers. The study findings suggested that the training significantly increased sleep quantity by 25 min per 24-h period and improved sleep quality scores from 84% before the intervention to 87% after the training. With an increasing workload, ever present threats, not least the recent COVID-19 pandemic and ever more sophisticated equipment and training, getting sufficient sleep in both quantity and quality is critical for police officers across different settings.

In our next article, Karin Dangermond *et al.* explore the issue of informal peer support for firefighters to cope up with critical incidents. In their paper entitled, “The problem hasn’t changed, but you’re no longer left to deal with it on your own” – the role of informal peer support in helping firefighters cope with critical incidents,” the authors highlight the role of informal support gathering evidence from over 70 interviews with Dutch firefighters from 37 different fire brigades. The study findings reveal that firefighters turn to informal peer support to cope with critical incidents provided that facilitating circumstances are present and there is adherence to certain implicit rules. The collective sharing of memories, whether immediately post-incident or after the passage of time, helps firefighters process critical incidents and serves to promote unit cohesion. The findings are clearly relevant to wider emergency services such as ambulance and police workers who deal with traumatic and critical incidents routinely.

In a fascinating paper, John Hylander *et al.* explore the collaborative challenge of emergency response to major incidents in road tunnels for the emergency services, emergency dispatch centers and local authorities next. In their paper entitled, “Time-efficiency factors in road tunnel rescue as perceived by Swedish operative personnel – an interview study” the authors argue for a more coordinated interactions by rescue services. Supported by interview evidence, the study highlighted three important points which impact efficiency while dealing with critical incidents in the tunnel; namely shared terminology, situational awareness and lessons learned. The study calls for establishing national policies and collaborative forums for more efficient management of rescue efforts in road tunnel incidents in Sweden and also in other countries with similar organizational structures and also offers fresh insights into interoperability during responses to complex underground incidents.

Our eleventh article by Mark Taylor *et al.*, entitled “An exploration of alcohol and drug related fire injuries,” examines alcohol and drug-related accidental dwelling fire injuries over a ten-year period (2006–2016) including analysis of injuries by age group, gender, level of deprivation and housing type in the North West of England. The study highlighted that deprivation was a significant factor in alcohol and drug-related fire injuries over the period studied, with 70% of such injuries occurring in areas with the highest level of deprivation. Males appeared roughly twice as likely to be injured in an alcohol and drug-related fire incident than females and the majority of those injured were in the age range 35–59. Findings from this study will be useful to other fire and rescue services, both in the UK and worldwide in terms of understanding the circumstances associated with such injuries.

On a related theme of fire and rescue services, David Huntsman *et al.* explore the lack of response organizations’ success during complex incidents which is often attributed to senior leaders who are risk averse, overly bureaucratic and resistant to change. While uncertainty during emergency response operations necessitates adaptive performance, emergency response organizations, such as the fire service, tend to constrain adaptive behaviors due to their highly formalized bureaucratic structures. Using survey data from four USA fire departments, this research tests whether mid-level supervisors can empower firefighters by increasing their ability to improvise during complex emergency response operations and whether this enhances department adaptive performance. One of the key conclusions from this study pertains to the enabling role of leaders in bypassing hierarchical constraints to be more successful in increasingly competitive conditions by empowering employees.

In the last article included in this issue, Khalid Alshahrani *et al.* investigate the important question of stress and coping strategies in EMS personnel. The paper titled, “Coping strategies and social support are associated with post-traumatic stress disorder symptoms in Saudi paramedics” explores prevalence rate of PTSD symptoms among Saudi paramedics including the types of coping strategies and the sources of social support available to them. Collecting data from over 200 paramedics working in the Saudi Red Crescent Authority, participants completed questionnaires measuring PTSD symptoms (the Screen of Post-Traumatic Stress Disorders, SPTSD), passive and active coping strategies (Brief COPE Scale, BC) and three forms of social support: support from friends, family and organizational support. Almost 50% of the sample experienced one or more PTSD symptom, 28.6% scored above the cut-off for partial PTSD and 17.5% scored above the cut-off for full PTSD. PTSD symptoms were significantly positively correlated with passive coping and negatively associated with both family and friends support. Passive coping was positively associated with a greater risk of meeting criteria for PTSD. Need for effective interventions to reduce PTSD including further research to help understand the psychological, social and work-related factors that contribute to these high levels of PTSD follows from this analysis.

In 2021, *IJES* achieved two significant milestones. We made a debut entry in the Academic Journal Guide 2021 published by the Chartered Association of Business School (CABS) as a “two star” journal. *IJES* is now also included in the Journal Quality list published by the Australian Business Deans Council (ABDC) as a “C”-rated journal. Such a recognition for a relatively new journal such as ours would not have been possible without the support of our authors, reviewers, our publisher Emerald and our readers who given their valuable time to make the *IJES* a leading voice in the discipline. We are also grateful to scholars who cite the research published in *IJES*, thereby improving the journal cite score. We remain true to our mission by providing a scholarly platform for cutting-edge scholarship in the management of all emergency services, including universal services such as fire and rescue, police and ambulance services as well as more specialized services such as the Coastguard, air, sea or mountain rescue at all stages of the disaster cycle.

In 2022, *IJES* has been represented at major international conferences by sponsoring/hosting specialist panels/presenting papers on emergency services management by the editors and editorial team. This included the Annual International Research Society for Public Management (IRSPM) conference held in April 2022; The Annual British Academy of Management (BAM) hosted by the University of Manchester, UK in August-September. In North America, *IJES* editors were invited to feature the journal the 47th Natural Hazards Research and Applications Workshop and 2022 Researchers Meeting, which was organized by the Natural Hazards Center, University of Colorado Boulder. In 2023, *IJES* will again be represented at the Annual IRSPM conference in April 2023 which is hosted by the Corvinus University of Budapest in April and the Annual European Academy of Management (EURAM) conference organized by Trinity College, Dublin, Ireland in June 2023.

Most importantly, we want to thank our authors, reviewers, and readers in supporting *IJES*. The scholarly and scientific peer reviews form the foundation of *IJES* and helps us publish high-quality research. We value the comments and feedback from our readers and invite suggestions for future themes, topics and expressions of interest for special issues. We again renew our call for publishing with us or joining *IJES* as potential reviewers and/or on the editorial board.

Paresh Wankhade and Attila Hertelendy