

Editorial: International Journal of Emergency Services, volume 13, issue 2

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We are again excited to present the editorial for the second issue of Volume 13 in 2024. In this shorter issue, the *International Journal of Emergency Services (IJES)* is publishing five original articles exploring key issues facing the emergency ambulance and fire and rescue services globally, covering three continents.

Out of the five articles, four papers address important topics within the emergency medical services (EMS) domain, notably: the use of lights and sirens by ambulance crews; perceived competence of paramedics to operate in different chemical, biological, radiological, nuclear, and explosive (CBRNE) incidents; level of professional moral courage (PMC) in EMS providers and the different skill mix of paramedics and nurses for 999 telephone triage. The final paper covers the important issue of accidental dwelling fire injuries. All the papers importantly contribute to the body of knowledge in the field of emergency services management, thereby improving scholarly and practitioner understanding of the field (Wankhade and Murphy, 2023).

The first article is titled “Time savings associated with lights and siren use by ambulances: a scoping review”, co-authored by Aditya Shekhar and Jeffrey Clement. It explores the contested issue of the usefulness of the use of lights and sirens by EMS personnel for response and transport of patients in the USA. It has been argued in the literature that during time-critical situations such as trauma, the time savings associated with lights and siren use may be clinically beneficial (Brown *et al.*, 2000), but other studies have found that response times do not always impact outcomes (Pell, 2001; Pons and Markovchick, 2002). The authors conducted a scoping review of the literature and meta-analytic synthesis of those results, following the Cochrane principles. Nine studies were included in which lights and siren use was associated with a weighted average time savings of 159 s or 2.7 min (95% CI: 100–219 s, $p < 0.0001$). Their analysis reveals that lights and siren use is associated with time savings across geographies, but the precise difference may only be beneficial to certain patients (Murray and Kue, 2017). Clear policy and practitioner implications emerge from this study including avenues for further research.

In our second article, Inka Malinen, Timo Jama, Antti Tanninen and Hilla Nordquist identify the perceived competence of paramedics to operate in different CBRNE incidents in their paper titled “The perceived competence of paramedics to operate in different CBRNE incidents”. The perceived CBRNE competence of paramedics has not been studied. This study showed that paramedics could benefit from more training to respond to CBRNE incidents to improve perceptions of their competence. Data were collected from over 160 Finnish advanced and critical care-level paramedics through a descriptive cross-sectional survey study. The STROBE Checklist for cross-sectional studies was utilised in reporting. Data revealed that 72% of paramedics with over ten years of work experience had received CBRNE training, which built confidence in almost 40% of the sample than those with under ten years of experience. Among the less experienced, 17.5% of paramedics who received CBRNE training stated that the training gave them confidence, and 22.5% felt their confidence was unaffected by the training. The study concludes that the desired competence, actual competence and appropriate training to respond to CBRNE incidents require further research. Findings from this study are relevant from a policy, practice and public assurance perspective.



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The important but currently under-researched issue of the level of PMC of EMS providers and its relationship with their demographic characteristics is next examined by Mohammad Reza Shokouhi, Mohammad Torabi, Rasoul Salimi and Parisa Hajiloo. In their article titled “The Relationship Between Professional Moral Courage and Individual Characteristics Among Emergency Medical Services Providers”, the authors investigated this issue in an Iranian setting. Conducting a cross-sectional descriptive study on 175 EMS providers at the Hamadan Emergency Medical Centre, data were collected using a demographic information form and Sekerka’s moral courage questionnaire. The collected data were analysed using SPSS software with descriptive and analytic tests. The results revealed a positive correlation between work experience and PMC among providers. The majority of participants had work experience ranging from 8 to 14 years (49.7%) and held a degree in emergency medicine (52.6%). The participants displayed a high level of PMC, with an average score of 62.5 ± 8.14 . Notably, age, work experience, educational level and employment status were all found to have a significant relationship with moral courage ($p < 0.05$) among the demographic characteristics. The results of this study can play a significant role in the development and influence of organisations and managers in increasing the PMC of EMS providers, utilising methods such as stabilising job positions, incorporating experienced employees alongside novices and emphasising continuity in specialised professional ethics training.

Our fourth article is co-authored by Mike Brady, Mark Conrad Fivaz, Peter Noblett, Greg Scott and Chris Olola and is titled “999 telephone triage: a comparison of UK ambulance nurse and paramedic case mix, outcomes and audit compliance”. While most UK ambulance services, including many services globally (Turner *et al.*, 2015), undertake remote assessments of 999 calls with nurses and paramedics to manage demand and reduce inappropriate hospital admissions, little is known about the differences in the types of cases managed by the two professions comparatively, their clinical outcomes and the quality and safety they offer. The retrospective descriptive study analysed the data collected at Welsh Ambulance Services University NHS Trust (WAST) from prioritisation, triage and audit tools over a six month period in 2022 with a total of over 21,000 cases and 728 audits included for review. The study found little difference in the type and frequency of the presenting complaints assessed and clinical outcomes reached in percentage terms. While paramedics had more highly compliant call audits and fewer non-compliant call audits, there was, again, little difference in percentage terms between the two, indicating positive levels of safety across the two professional groups. Future research could explore longer review periods, covering variations in service demand from multiple EMS settings using various tools to determine more generalisable findings (Eastwood *et al.*, 2015; Dale *et al.*, 2004).

In our final article titled “A catastrophe theory view of accidental dwelling fire injuries”, Mark Taylor, Hulya Francis, John Fielding and Emma Dean explore the application of the catastrophe theory to the analysis of *accidental dwelling fire injuries* in terms of age band, gender and contributory factors in order to inform fire prevention activities. Employing a case study in a UK Fire and Rescue service, the study analysed the circumstances of accidental dwelling fire injuries and the characteristics and behaviours associated with utilising frequency analysis, percentages, ratios and catastrophe theory modelling. The study found that overall males were more likely to be injured in an accidental dwelling fire compared to females by a ratio of 1.68 to 1, and those in the age band 50–64 appeared to be at maximum risk. A total of 15.4% of the accidental dwelling fire injuries involved consumption of alcohol or drugs and 5.9% involved falling asleep. Study findings are significant for analysing the circumstances of accidental dwelling fire injury to identify patterns concerning when a catastrophic change relating to ordinary use of domestic objects results in an accidental dwelling fire injury. The proposed method provides decision-makers with an effective tool to make informed decisions about fire safety and thus enhance emergency response and public safety.

As we have continued highlighting in our previous editorials, *IJES* is now covered in the Academic Journal Guide 2021 published by the Chartered Association of Business School (CABS) as a “two-star” journal and in the Journal Quality list published by the Australian Business Deans Council (ABDC) as a “C”-rated journal. We owe our gratitude to our authors, reviewers and readers including the wider emergency management community for this recognition in such a short period of time. We are, as always, grateful to our authors who publish in *IJES* and also other scholars who cite our research.

In 2024, *IJES* has been well represented at major international conferences by sponsoring/hosting specialist panels/presenting papers on emergency services management by the editors and editorial team. This includes: the Annual International Research Society for Public Management (IRSPM) conference held in Tampere, Finland, in April 2024; the British Academy of Management (BAM) conference being organised by Nottingham Trent University, UK, in September 2024 and the UK Association of Public Administration (UKAPA) Conference, being organised by the University of Birmingham, also in September 2024.

We again renew our call for publishing with us or joining *IJES* as potential reviewers and/or on the editorial board including submitting proposals for a Special Issue (SI) topic(s).

Professor Paresh Wankhade, Editor-In-Chief

Edge Hill University, Ormskirk, UK

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Paresh Wankhade

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