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Under fire! Applying an intersectional lens to decision-making in response to critical incidents in the fire and rescue service

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Under attack! Effective decision-making strategies to manage hostile interactions between front-line firefighters and the public

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Abstract

Notwithstanding occupational hazards, firefighters face additional dangers, with attacks on the UK fire service becoming more frequent. Sadly, while in positions of power, when safeguarding local communities, these street-level service personnel are often abused in horrific attacks, noted in the national press. These conflicts warrant further research, as attacks may be directed more towards certain groups and more prevalent in certain areas.

In partnership with a regional UK fire service, data collection consists of large-scale surveys and interviews with senior management. The aim is to establish firefighters' thoughts about potential causes of such interactions, examining whether locality and/or demographics impact on attack frequency. We use data-driven decision making (DDDM) theory (Mandinach, 2012) to understand the strategies guiding the decision-making processes to support firefighters when they are faced with negative interactions from the public. In doing so, we highlight opportunities for improvements in response.

Keywords:

First Responder, Firefighter, Incident, Attacks, Qualitative Research

Introduction

Firefighting is challenging and dangerous, due to occupational hazards. As such, studies have focused on the traditional strong masculine identity of the profession (e.g., Woodfield, 2016). However, sadly, while in positions of power, UK front-line firefighters continue to be abused in horrific attacks, often noted in the national press, (e.g., BBC, 2022; BBC, 2023; Chronical Live, 2022; ITV, 2021). Attacks last year were at 983 nationally and have grown by 12% over the last 10 years (Home Office, 2022).

The high-profile impact of such attacks warrant further research. Indeed, attacks may be directed more towards certain groups or occur more frequently in certain areas. It is anticipated that data analysis may shed light on the emergence of possible antecedents, which may act as a catalyst to explain why such attacks are prevalent towards the emergency services. Such community-based organisations ought to be broadly representative of the populations they serve, to be more responsive to their needs (Andrews et al., 2014). The aim is to establish firefighters' thoughts about potential causes of such interactions, examine whether locality and demographics impact on attack frequency, and highlight opportunities for improvements in response to critical incidents. Hence, we use data-driven decision making (DDDM) theory (Mandinach, 2012) to understand the strategies guiding the decision-making processes to support firefighters when they are faced with negative interactions from the public. Findings seek to offer inclusive solutions, which may be potentially shared nationally across regional services.

The operational context of firefighting work

The responsibility of front-line personnel, be they paid professionals or volunteers, is to ensure the safety and well-being of the communities they serve, when faced with life-threatening critical incidents and emergencies (Haugen et al., 2012; Alden et al., 2021). Firefighting is challenging and dangerous, with the primary role to protect life and property (Fire and Rescue Services Act, 2004). Front-line workers are required to possess a reasonable level of fitness to effectively undertake operational tasks, such as manual handling of equipment and casualty extraction, safely and securely (Richmond et al., 2008; Zare et al., 2018). As such, sociologists of work have focused on the gendered 'masculine' nature of firefighting and the physical employment standard for entry into the fire and rescue service (FRS) (e.g., Hall et al., 2007; Ainsworth et al., 2014; Blacker et al., 2016; Woodfield, 2016).

However, akin to all emergency first responders, firefighters experience a sliding scale of various chronic stressors (i.e., low-intensity every-day working conditions, such as shift work

and workload) to high-intensity acute stressors due to the range of critical incidents they are confronted with (Sliter et al., 2014; Sawhney et al., 2017). The more severe, life-threatening acute stressors are known as traumatic stressors and tend to be unique to the work of emergency first responders (Haugen et al., 2012). Given that these first responders are at risk of exposure to potentially traumatic situations when managing critical incidents, they are more susceptible to developing mental ill health (Alden et al., 2021). This may be further compounded by potential negative interactions when responding to incidents.

Encouragingly, scholarship in this space has begun to investigate the effects of such traumatic stressors on the wellbeing of firefighters (Sattler et al., 2014; Sliter et al., 2014; Young et al., 2014; Sawhney et al., 2017). In 2018-2019, the mental health charity, Mind, conducted a follow-up survey to their initial 2015 study exploring mental health of emergency services staff across England and Wales. From the 5,081 responses in 2019, fire service staff and volunteers represented 20%. Results from the FRS showed that 60.2% experienced mental health problems, compared to 53.4% in 2015, with depression (39.3%), anxiety (39.1%) and PTSD (18.1%) the most reported, with experience of distressing or traumatic events cited as the second highest cause of poor mental health, moving up from sixth place in 2015 (Mind, 2019). To deal with stress caused by occupational stressors and critical incidents, FRS personnel may employ various recovery strategies (Sawhney et al., 2017), with the use of humour often forming part of the coping mechanism (Sliter et al., 2014; Rosing et al., 2022).

Notwithstanding the physiological and psychological distress inherent in the work of firefighters, as they are exposed to a range of traumatic stressors, shockingly, public attacks on firefighters continue to grow. During the financial year 2021-22, there were 983 attacks on UK firefighters – an increase of 12% over the last decade – in which 60 were injured (10% seriously injured), and with 60% of attacks on firefighters (590 incidents) involving verbal abuse (Home Office, 2022). These figures are distressing. In this research, we adopt a data-driven decision making (DDDM) approach (Mandinach, 2012) to understand the strategies guiding the decision-making processes to support firefighters when they are faced with negative interactions from the public. We also wish to ascertain whether attacks are directed more towards certain groups. Is the demographic diversity of the FRS workforce part of the problem? Government documents stipulate that, as a minimum requirement, every fire and rescue authority ought to be implementing a people strategy which has been collaboratively designed with its workforce and which seeks to improve its diversity to ensure that it is representative of the community in which it is part (Home Office, 2018). This is especially important, as research suggests that it is on this community-facing side where the

relationship between the firefighters and clients (public) may hold the key to success (Andrews et al., 2014).

As such, at the conception of this research project, it was clear that there is very little extant literature relating to UK firefighters within the UK. Prior research has been focussed on major catastrophic events and those with a global impact, such as the attack on the Twin Towers in 2001. This literature review is aligned to the initial concept that there are three stages relating to the phenomenon of managing attacks on fire service personnel. 1) Prepare: activities and antecedents which affect the ability to prepare effectively for such negative interactions. 2) Response: Actions and events that need to be managed during an incident where negative or hostile interactions occur. 3) Review: What happens after an attack has occurred and how this may be used to inform stages 1 and 2.

Methodology

The research design approach focuses on a single organisation case study (Yin, 2014). The case organisation is a regional emergency service organisation with 700 staff within different roles. Ranging from administrative to front line personnel and “is responsible for the fire and rescue service across the two unitary authority areas of County Durham and the borough of Darlington, serving a population of over 620,000 people spread over almost 2,460 square kilometres” (CDDFire, 2023).

Data collection consisted of a survey questionnaire, consisting of open-ended questions. After agreement from the target organisations. Participants at serving members of the Fire Authority, County Durham & Darlington Fire and Rescue Service were contacted by email asking for their agreement. With the agreement of the organisation, the survey was distributed to operational personnel, including control room staff and front-line personnel who are the first responders. The control room are responsible for all communications during an incident. Working in collaboration, these two teams are directly impacted where a negative interaction with the public occurs. All necessary ethical procedures were followed with regards data collection and analysis to ensure full participant anonymity and confidentiality. This activity was conducted in-line with the Universities Ethics and Approvals process (UNN, 2021). Participant selection was targeted at serving members of the Fire Authority, County Durham & Darlington Fire and Rescue Service. By the end of data collection phase, 26 responses were received and fully completed.

Data Analysis

With regards data analysis, explicit codes were established as the starting point of the analysis process. Derived from the literature review, a defined list of codes or “template is created; based on theoretical perspectives, prior research, or preliminary scanning of the text” (Miles & Huberman, 1994:381). Codes established from the outset were done so to enable transferability from this single case application to other research areas. These were 1) Prepare, 2) Respond and 3) Review to establish a starting point to allow the subthemes and codes to emerge in a structured way. While this research is not specifically mixed methods, it does adopt Qualitizing (Onwuegbuzie et al., 2021) to highlight the most prominent subthemes. These are prioritised as percentages at the start of each section within the data analysis and applied against the relevant code.

Analysis was carried out using template analysis (Brooks et al, 2019). The key emphasis of this approach focuses upon themes or aspects of data, using codification and categorisation as a method of identifying common themes. This research therefore follows an inductive approach, as it starts with selected pre-defined codes, within the initial template. This allowed the researcher to revise the template throughout, achieving the final structure by streamlining codes within the template. Brooks et al, (2019) discuss that the changes made in this process typically include insertions.

Emergent findings

An incident is defined as any event which the fire service is called to attend in line with their emergency response process. The aim is to ensure the safety and well-being of the communities they serve, when faced with life-threatening critical incidents and emergencies (Haugen et al., 2012; Alden et al., 2021). The emergent codes have been established based on existing literature (Home Office, 2022; ONS, 2022), and built on during the analysis phase coding appropriate themes to the relevant coding structure as shown in figure 4.1.

Figure 4.1: Incident Dependent Antecedents

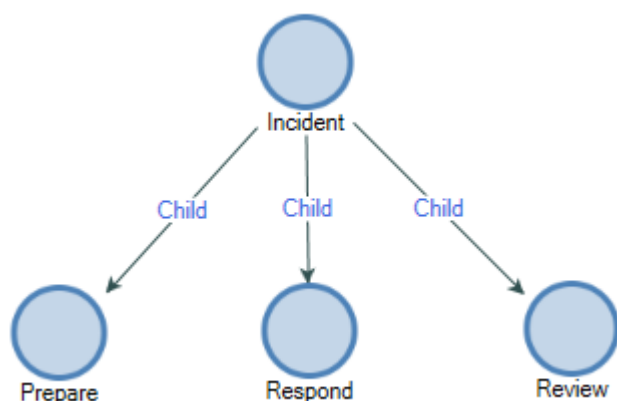


Figure 4.1 identifies the primary antecedents emerging as contributing factors in a) any preparatory elements already in place to react to an attack on fire service personnel and b) the potential contributory factors emerging from the data. These nodes are 1) Prepare: How the service prepares in advance for potential negative interactions, 2) Respond: the contribution factors that are perceived to lead to an attack and the response of fire service personnel to react to such confrontations and 3) Review: What happens after an incident when a negative interaction or confrontation has occurred.

Considering these themes in more detail, preparation emerges as needing two pathways during the time before an incident. The first is preparing personnel to be able to respond to incidents and secondly, the incident itself. Personnel preparation highlights two key areas that impacting the preparation stage: 1) Prior Experience and 2) Training. Secondly, the incident preparation process was the predominant focus for participants responses. Six key subthemes emerge from the data: Incident Type, Location, Communication, Occurrence, People and Behaviours.

Response is defined as the actions or activities that occur during an incident where a hostile interaction takes place. Six subthemes emerged from the data which are established as the antecedents relevant when responding to an incident. These are incident type, occurrence, location, people, threat and react.

Finally, the review stage establishes the factors that need to be considered after an incident has occurred. They have emerged as three components that contribute to the potential improvement of the strategic management of attack situations. They are 1) Engagement, 2) Operational Debrief, and 3) Welfare.

Concluding remarks

In sum, knowledge relating to the safety of an organisations personnel and how they respond to scenarios that may present risk acts as a valid contributor to expanding our understanding of the causes of such phenomenon and potentially inform future practice. In response to any attack on fire service personnel during an incident, there are three areas that need to be considered: 1) **prepare** for an anticipated negative interaction with the public, 2) The required actions and processes that should be followed when **responding** to an incident and 3) **Reviewing** incidents to learn and inform future interactions.

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