

Police adverse career experiences (PACEs): development of a police in-service outcome survey tool

Eric Halford

Abstract

Purpose – *The purpose of the paper is to conceptualise and develop a new framework and screening tool modelled on the adverse childhood experiences (ACEs) study. It identifies and categorises the most common operational, investigative and organisational adversities police officers face to enable measurement of cumulative career trauma and its association with both health and occupational outcomes.*

Design/methodology/approach – *The study uses a scoping review methodology following Arksey and O'Malley's (2005) five-stage framework, guided by the Population–Exposure–Outcome (PEO) model. Literature was systematically reviewed across policing domains and thematic analysis (Braun and Clarke, 2006) was applied to identify recurring adverse experiences. These were synthesised into 13 police adverse career experiences (PACEs) and formulated into a preliminary binary self-report survey tool modelled on the ACE framework.*

Findings – *The study identified 13 recurrent PACEs across three overarching domains: Operational, Investigative and Organisational. Operational PACEs included exposures such as witnessing death, serious assault, fatal collisions, handling human remains, responding to suicides and loss of colleagues are all associated with PTSD, anxiety, prolonged grief and sleep disturbance. Investigative PACEs encompassed experiences like investigating child deaths and sexual abuse cases, linked to burnout, vicarious trauma and depression. Organisational PACEs involved procedural injustice, moral injury, misconduct inquiries, bullying and negative leadership, which were tied to depression, anxiety, PTSD, presenteeism, turnover intentions and suicide risk.*

Practical implications – *The tool created provides a comprehensive, police-specific model for capturing exposure to adversity across operational, investigative and organisational domains, something not currently offered by existing stress or trauma assessment tools. Unlike symptom-based instruments, PACEs focuses on exposure rather than diagnosis, enabling early identification of officers at risk of negative outcomes such as PTSD, burnout, misconduct or ill-health retirement.*

Originality/value – *This lies in its introduction of the PACEs framework, which is the first empirical attempt to systematically identify, categorise and operationalise adverse experiences unique to policing into a survey tool.*

Keywords *Police adverse career experiences, Trauma-informed policing, Occupational stress, Police well-being, Police trauma*

Paper type *Conceptual paper*

Eric Halford is based at the Department of Research and Innovation, Rabdan Academy, Abu Dhabi, United Arab Emirates.

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Introduction

The adverse childhood experiences (ACEs) framework originated in a mid-1990s study prompted by clinical observations in an obesity treatment programme, where treatment-resistant obesity was frequently linked to significant childhood adversity (Felitti *et al.*, 1998). This led to the ACE Study and the development of a survey instrument drawing on existing literature and clinical tools, refined to ten core questions assessing adverse events before age 18 across three domains: abuse, neglect and household dysfunction (Felitti *et al.*, 1998; Dube *et al.*, 2003).

The approach reflects an exposure–outcome framework consistent with life course epidemiology and cumulative risk research. Life course perspectives emphasise that outcome-related risk is shaped by the timing and persistence of adversity exposure (Ben-Shlomo and Kuh, 2002) and by the cumulative burden of multiple distinct adversities (Evans *et al.*, 2013). Biopsychological accounts highlight increased allostatic load as a plausible mechanism, whereby chronic or repeated stress produces physical and psychological wear and tear over time (McEwen, 1998). The ACE framework operationalises this logic and has consistently demonstrated a graded, dose–response relationship between cumulative exposure and later adverse outcomes (Felitti *et al.*, 1998; Hughes *et al.*, 2017).

As a tool, The ACE framework was never intended as a comprehensive inventory of childhood adversity. It was designed to capture common, measurable, high-impact experiences that could be feasibly assessed via retrospective self-report. Consequently, it is limited by a lack of specificity about the causes of adversity, assumptions of exposure equivalence and limited capacity to account for patterned or differential effects (Lacey and Minnis, 2020; McLennan *et al.*, 2021), which matters because some ACEs may exert greater influence on outcomes (Fitzgerald and Bishop, 2025; Lacey and Minnis, 2020). Despite these constraints, its simplicity and scalability underpin its enduring public health influence (Finkelhor, 2018). ACE-style measures have therefore been adopted internationally and applied across domains to examine associations between childhood adversity and health and behavioural outcomes (Basto-Pereira *et al.*, 2022; Dube *et al.*, 2003; Fergusson *et al.*, 2013; Hughes *et al.*, 2017; McLennan *et al.*, 2021). This includes emergency service research, including associations with law enforcement mental health outcomes (McDonald *et al.*, 2022; Violanti *et al.*, 2021), stress-related effects (Komarovskaya *et al.*, 2014; Otte *et al.*, 2005; Rabichuk *et al.*, 2025; Violanti *et al.*, 2021), moral injury (Battaglia *et al.*, 2019; Roth *et al.*, 2022; Yeterian *et al.*, 2019) and police misconduct (Halford, 2025).

Although ACE measures have been useful in policing research for linking officers' formative histories to some in-service outcomes, they do not capture the substantial adversity encountered during policing careers. Estimated exposure ranges from 170 to 900 adverse incidents across a full career (Chopko *et al.*, 2015; Patterson, 2001; Rudofossi and Lund, 2017). Research has therefore tended to examine operational trauma via specific incident types, roles or investigative features (Foley *et al.*, 2022, 2024; Miller *et al.*, 2023). More broadly, policing well-being measurement remains dominated by outcome-focused instruments assessing PTSD symptoms, stress, burnout, anxiety, depression or general well-being, often relating these outcomes retrospectively to functions or incident exposure (Foley *et al.*, 2022; Houdmont *et al.*, 2012; McCarty *et al.*, 2019; Sherwood *et al.*, 2019; Wellington, 2021). While these tools are valuable for identifying current psychological states, they are inherently downstream and indicate harm without specifying the cumulative or patterned career exposures that preceded it. Reliance on outcomes and diagnosis alone can therefore encourage a reactive evidence base that supports post-hoc intervention but offers limited leverage for upstream prevention.

This article argues that an exposure-focused approach can provide a complementary, more preventive lens. Rather than measuring outcomes or symptoms alone, an exposure tool can quantify cumulative burdens of recurrent career adversities and support systematic testing of associations with both health outcomes and non-health organisational outcomes. This matters because policing harms extend beyond clinical well-being and include organisational and career outcomes such as presenteeism, leaveism, turnover intentions and resignation, and adverse conduct or performance trajectories, which are widely discussed but rarely examined using a consistent exposure measurement framework (Drew *et al.*, 2025; Wellington, 2021).

At present, exposure measurement in policing is fragmented. While some studies assess operational trauma exposure, others focus on outcomes alone and many treat operational, investigative and organisational contexts as discrete domains (Boag-Munroe, 2017; Foley *et al.*, 2024; Purba and Demou, 2019). This fragmentation has two consequences. Firstly, it

limits understanding of how adverse career experiences interact across domains over time. Secondly, the absence of a standardised exposure instrument reduces comparability across studies and constrains scalable organisational learning, including benchmarking exposure patterns across units, roles and time periods.

To address this gap, and building on the utility of the ACE framework, this article extends exposure–outcome logic to in-service adversity across the policing career life course and develops a practical screening survey of police adverse career experiences (PACEs). The instrument is intentionally an exposure checklist rather than a diagnostic tool and is designed to complement, not replace, validated outcome measures. By spanning operational, investigative and organisational domains, it provides a foundation to examine exposure–outcome associations for both health and occupational outcomes at individual and organisational levels.

The survey is developed via a scoping review guided by the Population–Exposure–Outcome (PEO) model (Bettany-Saltikov, 2016; Khan *et al.*, 2011) to identify PACEs that are common, measurable and impactful, and that can be feasibly assessed through retrospective self-report, consistent with the pragmatic logic of ACEs. The discussion distinguishes PACEs from existing measurement approaches, outlines potential applications for trauma-informed policy and practice, and notes limitations, including the absence of empirical validation and the need for future research to test reliability, validity and exposure–outcome associations.

Background

Exposure to adverse experiences in policing is substantial, with officers regularly encountering emotionally and psychologically distressing situations. Patterson (2001) estimated an average of 3.5 traumatic incidents every six months, which extrapolates to more than 170 events across a 30-year career. Other estimates are higher, approaching 900 incidents when indirect trauma (e.g. secondary exposure to victims' suffering or graphic materials) is included (Chopko *et al.*, 2015; Rudofossi and Lund, 2017). This frequency and intensity distinguish policing from many occupational settings and is reflected in UK survey findings where over 80% of officers report stress, low mood or anxiety and more than 90% report that work caused or worsened these problems (Wellington, 2021). Consequently, well-being assessment, particularly trauma exposure and its relationship to policing-related outcomes, has become a central concern, prompting the development and use of a wide range of tools.

Most instruments, however, remain outcome-led, relying on general and policing-adapted measures assessing stress (Gerber *et al.*, 2010; Gomes *et al.*, 2016; Cohen *et al.*, 1994; Parkitny and McAuley, 2010; Cooper *et al.*, 1988; Anunciação *et al.*, 2022; Gershon *et al.*, 2009; Spielberger and Reheiser, 2020; McCarty *et al.*, 2019; McCreary and Thompson, 2006), burnout (Maslach *et al.*, 2001; Montero-Marín & García-Campayo, 2010; Feldt *et al.*, 2014; Goodman, 1990; Vuorensyrjä & Mäkiä, 2011) and PTSD symptoms (Foley *et al.*, 2022; Weathers *et al.*, 2018; Cloitre *et al.*, 2021; Weiss *et al.*, 2010), including applications to occupational outcomes such as resignation intentions and workforce well-being monitoring (Drew *et al.*, 2024, 2025; Houdmont and Elliot-Davies, 2016). Where exposure is measured, it is often fragmented across general trauma checklists, policing incident inventories and organisational hazard measures (Gray *et al.*, 2004; Carlier *et al.*, 1997; Weiss *et al.*, 2010; Houdmont and Elliot-Davies, 2016; Miller *et al.*, 2023) and can be constrained by scalability (e.g. clinician-administered formats), operational or frequency emphasis, and 'worst-event' framing, with less consistent coverage of investigative and organisational adversity (Weathers *et al.*, 2018; Carlier *et al.*, 1997; Weiss *et al.*, 2010; Miller *et al.*, 2023). Collectively, this supports the need for a simplified, standardised, policing-specific exposure instrument capable of capturing adverse career experiences across operational, investigative and organisational domains to enable consistent exposure–outcome testing for both health and occupational outcomes.

The current study

Inspired by the original ACEs tool, this article develops a framework to capture PACEs and assesses whether police-specific in-service adversities can be systematically identified and linked to measurable negative outcomes among police personnel. If so, this provides a basis for a scalable screening tool that can establish baseline PACE exposure among UK officers and support examination of associations with a wide range of officer- and organisational-level outcomes, including common health issues, promotion, misconduct and resignation. The study is guided by the following research question:

Can Police Adverse Career Experiences (PACEs) be systematically identified and operationalised into a scalable screening tool that captures cumulative in-service adversity and enables the examination of associations with both health-related and organisational outcomes in policing?

To address this question, the article synthesises existing literature to develop a PACEs taxonomy, which is then translated into a survey instrument. Consistent with the ACE approach, the tool is designed as a brief self-report checklist using binary (yes/no) responses that contribute to a cumulative score; higher ACE scores have been reliably associated with elevated risk of adverse outcomes (Hughes *et al.*, 2017). The intention is to replicate this pragmatic format to support feasible, scalable exposure assessment in policing.

Method

To develop the PACEs survey, principles of scale construction outlined by DeVellis and Thorpe (2021) and the best-practice framework from Boateng *et al.* (2018) were used to inform early-stage instrument development. Specifically, the construct definition and item generation stages (DeVellis and Thorpe, 2021; Boateng *et al.*, 2018) were addressed through a scoping review followed by thematic analysis to identify and select candidate items. The resulting survey is explicitly positioned as a preliminary instrument, pending empirical testing of reliability, structural validity, and broader construct validation.

Reflexivity statement

The author's professional policing background and academic role informed the identification and interpretation of PACEs. To mitigate potential bias, items were derived from published empirical, theoretical, and policy sources; analysis was iterative and transparent; and inclusion criteria were intentionally broad to avoid privileging particular experiences or outcomes. PACEs therefore represents a synthesis of the evidence base rather than professional experience alone, while acknowledging the interpretive judgement inherent in early-stage construct development.

Scoping review method

To develop the survey, the scoping review methodology proposed by Arksey and O'Malley (2005) was adopted. A systematic review and meta-analysis were not appropriate because the study aim was not to estimate pooled effect sizes or identify statistically dominant predictors, but to define and operationalise PACEs and generate an initial item pool for a scalable screening instrument. Given the heterogeneity in how policing adversities and outcomes are conceptualised and measured, statistical synthesis was not meaningful and a scoping approach was better suited to mapping a broad evidence base spanning quantitative, qualitative and grey literature, including practitioner and Police Federation surveys.

Qualitative studies were included to capture adverse career experiences that are poorly represented or inconsistently labelled in quantitative research, particularly organisational and cultural adversities such as procedural injustice, moral injury, bullying and negative

leadership, and to ensure item generation reflected officer-identified experiences. This aligns with early-stage construct development, where coverage and construct clarity are prioritised over effect estimation, and provides a foundation for subsequent validation once the construct and instrument are established.

A limitation of scoping reviews is the absence of formal critical appraisal, which may increase the risk of incorporating lower-quality studies (Grant and Booth, 2009). To mitigate this, the review followed Arksey and O'Malley's (2005) five-stage framework for question identification, study identification and selection, data charting and results synthesis and reporting.

Identifying and charting the studies

As outlined in the "Current Study" section, the research question informed stage two of the scoping review (identifying studies). A preliminary review was undertaken to develop an iterative keyword strategy grounded in the PEO model, which is commonly used in reviews focusing on health-related outcomes (Bettany-Saltikov, 2016; Khan *et al.*, 2011) and is well suited to capturing adverse experiences across policing careers.

Because "frontline" is variably defined across research and policy, the population scope was defined using Her Majesty's Inspectorate of Constabulary (HMIC) criteria. HMIC defines frontline policing as everyday contact with the public and direct delivery of policing services, encompassing "visible" functions (e.g. response and neighbourhood policing) and "specialist" functions delivering policing services through crime investigation and operational activity, while excluding back-office and purely support roles with materially different demands and exposure profiles (HMIC, 2011, p. 12).

Using this definition, population keywords included terms such as "police", "police officer" and "law enforcement". Exposure keywords were organised into two domains (operational and occupational) and outcome keywords into two domains (health and occupational). Consistent with scoping review conventions, terms were refined iteratively during screening, charting and thematic analysis to maximise coverage and minimise omission risk where occupational titles and role labels vary. The full keyword list was compiled in an Excel datasheet and is provided in Appendix.

The search process was conducted in accordance with PRISMA-ScR guidelines. Searches were conducted across Web of Science and Google Scholar between 1st and 20th July 2025. Study selection (stage three) followed predefined inclusion criteria: (1) studies focused on law enforcement personnel or police officers; (2) addressed at least one exposure and/or outcome as defined in the keywords; (3) included official governmental or policing reports, meta-analyses, and systematic reviews, and where not covered by these, individual empirical studies; and (4) imposed no restrictions on methodological design.

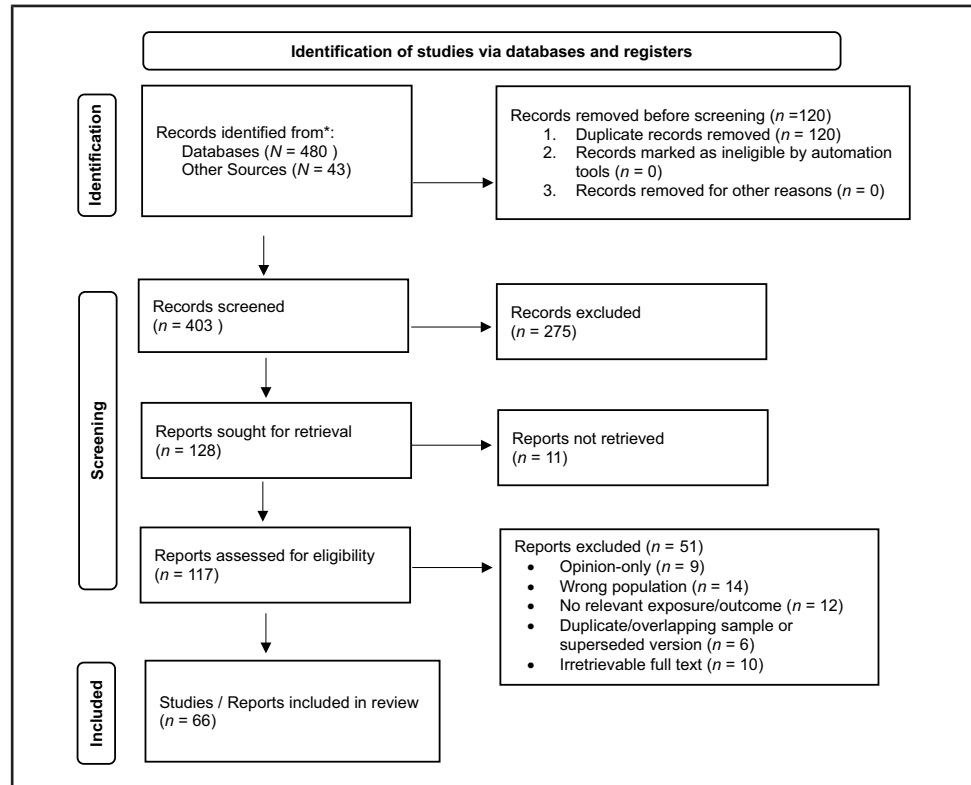
Study selection

Study selection followed the "sifting, charting, and sorting" process described by Arksey and O'Malley (2005), with initial screening based on titles, abstracts and conclusions. Figure 1 presents the PRISMA flow diagram and summarises records identified, screened and included. In total, 523 records were identified, and 66 met the inclusion criteria and were retained for full-text review and data extraction.

Collating, summarising and reporting results

Following selection and charting, thematic analysis was conducted using Braun and Clarke's (2006) six-phase framework. Studies were read in full, with PACEs and associated outcomes highlighted and manually coded to extract recurring concepts. Codes were reviewed iteratively, grouped into provisional categories and refined into overarching domains capturing

Figure 1 PRISMA flow diagram: identification and selection of studies and literature



commonalities across the evidence base. This process identified 13 PACEs across three domains, which were synthesised narratively and are reported in the Findings section.

Findings

The scoping review identified three domains of PACEs: Operational, Investigative and Organisational. [Table 1](#) summarises the 13 most commonly reported adverse experiences within these domains and the outcomes attributed to them in the literature. The item selection process aligns with early-stage scale construction principles concerning construct definition and item pool generation ([DeVellis and Thorpe, 2021](#); [Boateng et al., 2018](#)).

Operational adverse experiences

Operational Adverse Experiences arise from core policing duties and are often characterised in the literature as traumatic exposures that exceed routine demands. One of the most traumatic is witnessing a violent or traumatic death ([Violanti, 1999](#)), which is associated with increased risk of PTSD, anxiety, prolonged grief and chronic stress ([Violanti and Gehrke, 2004](#); [Violanti et al., 2007](#); [Papazoglou et al., 2020](#); [Sherwood et al., 2019](#); [Violanti et al., 2006](#)). Impacts may be intensified where organisational expectations require rapid return to duty, limiting opportunities for psychological processing and contributing to disturbed sleep and intrusive thoughts or imagery ([Hartley et al., 2013](#); [Henry, 2004](#)).

Serious assaults in the line of duty also represent a significant operational adversity ([Miller et al., 2023](#); [Sherwood et al., 2019](#)). In the UK, Police Federation of England and Wales (PFEW) findings indicate persistent violence, with 55% of officers reporting physical attacks and 13% reporting attacks with deadly weapons, resulting in injuries requiring medical treatment and longer-term physical and psychological strain ([Wellington, 2021](#)). Such

Table 1 Domains, events and outcomes identified that are associated with police adverse experiences

Domain	Event	Associated outcomes
Operational adverse experiences	Witnessing / involvement in a death in the line of duty	PTSD, anxiety, prolonged grief, chronic stress, sleep disturbance, intrusive imagery
	Being seriously assaulted while on duty	PTSD, anxiety, fear of victimisation, job dissatisfaction
	Attending a fatal road traffic collision (RTC)	PTSD, depression, sleep disturbance, intrusive imagery
	Handling human remains	Intrusive imagery, PTSD, distress, sleep disturbance, compassion fatigue
	Responding to suicides	Secondary traumatic stress, emotional withdrawal, increased suicide risk
Investigative adverse experiences	Death of a colleague	Survivor guilt, depression, increased suicide risk
	Investigating the death of a child	Emotional trauma, cognitive overload, burnout, depression
Organisational adverse experiences	Investigating child abuse, rape, and sexual exploitation	Secondary traumatic stress, vicarious trauma, sleep disturbance, burnout
	Procedural injustice	Institutional mistrust, reduced commitment, PTSD
	Moral injury	Compassion fatigue, PTSD
	Prolonged misconduct investigation or inquiry	Increased suicide risk, anxiety, depression
	Bullying and harassment	Depression, anxiety, PTSD, emotional exhaustion, isolation, increased suicide risk
	Negative leadership and oversight	Workplace stress, presenteeism, leaveism, job dissatisfaction, turnover intention, reduced performance, increased suicide risk

experiences are linked to higher risks of PTSD and anxiety and to enduring fear of future victimisation (Sherwood *et al.*, 2019; Wellington, 2021), which is associated with reduced job satisfaction and disengagement from duties and community interaction (Davidson *et al.*, 2023; Ellrich and Baier, 2017; Mueller and Tschan, 2011). Repeated assaults may compound these effects by eroding perceived safety and control over time.

Attendance at fatal road traffic collisions (RTCs) was also identified (Miller *et al.*, 2023). Officers responding to RTCs, particularly those involving children or multiple fatalities, report visual and emotional shock linked to sleep disturbance, intrusive memories and symptoms consistent with depression and PTSD (Backteman-Erlanson *et al.*, 2011; Foley *et al.*, 2022; Ramos-Galarza *et al.*, 2025). The unpredictability and graphic nature of these scenes can produce lingering psychological effects beyond incident closure (Stephens and Miller, 1998). Relatedly, repeated exposure to and handling of human remains (e.g. incident response, scene or post-mortem attendance), especially involving children or decomposed, dismembered or severely burnt bodies, was also classified as an operational adversity (Foley *et al.*, 2022; Greene, 2001; Karlsson and Christianson, 2003; Liberman *et al.*, 2002; Sherwood *et al.*, 2019; Violanti and Gehrke, 2004). Such exposures are associated with long-lasting intrusive thoughts and with reduced empathy and emotional withdrawal, potentially affecting victim care and public interactions (Greene, 2001; Karlsson and Christianson, 2003; Liberman *et al.*, 2002; Violanti and Gehrke, 2004).

Finally, responding to suicides and/or experiencing the loss of a colleague to suicide was identified as an operational adverse experience. In the UK, the issue has prompted national attention, with the College of Policing (2024) highlighting suicide exposure as a major source of psychological distress. Officers attending suicides may retain intrusive mental images that disrupt sleep and provoke complex responses, including survivor guilt, particularly where the deceased is known to the officer or is a colleague (Aldrich and Cerel, 2022; Cerel *et al.*, 2019). In cases of colleague suicide, harms may extend across teams, families and the wider policing community, contributing to grief, trauma, and longer-term emotional impacts (College of Policing, 2024).

Investigative adverse experiences

Investigative Adverse Experiences are distinct from operational ones in that impacts are often vicarious, but no less consequential. The literature identifies investigation of sexual offences, particularly those involving children, as one of the most psychologically taxing functions in policing. Although not exclusive to detectives, they often carry the bulk of these cases, requiring repeated exposure to traumatic material including graphic images, videos and victim accounts of abuse and exploitation (Foley *et al.*, 2022, 2024). In the 2017 PFEW detective survey, 72% of UK detectives reported frequent exposure to such material, associated with heightened stress and reduced well-being (Boag-Munroe, 2017; Sherwood *et al.*, 2019). Reported effects include emotional exhaustion, sleep disturbance, PTSD symptoms and elevated risk of secondary vicarious trauma (Foley *et al.*, 2024; Hurrell *et al.*, 2018; MacEachern *et al.*, 2019; Miller *et al.*, 2023; Turgoose *et al.*, 2017).

Investigating the death of a child was also identified as an Investigative Adverse Experience. Officers assigned to these cases report intense emotional strain and symptoms including anxiety, burnout and emotional exhaustion (Carpenter *et al.*, 2016; Miller *et al.*, 2023; Roach *et al.*, 2018). The moral and emotional burden, alongside case uncertainty and complexity, can undermine psychological resilience even among experienced officers (Holmes *et al.*, 2022).

Organisational adverse experiences

Organisational Adverse Experiences arise within the police service itself and reflect embedded structures, practices, policies, leadership dynamics and culture. One of the most psychologically corrosive is self-perceived procedural injustice, encompassing perceived unfairness, disproportionate scrutiny or lack of recognition (Sherwood *et al.*, 2019; Tyson and Charman, 2025). In the 2020 PFEW survey, fewer than 30% of UK officers believed organisational decisions, particularly staffing decisions, were effective or fair (Police Federation of England and Wales Social Market Foundation, 2025). Only 25% reported feeling treated fairly and 10% reported feeling valued (Police Federation of England and Wales Social Market Foundation, 2025). Perceived injustice is linked to burnout, betrayal, declining organisational trust, institutional abandonment, reduced commitment and resignation (Papazoglou and Chopko, 2017; Police Federation of England and Wales Social Market Foundation, 2025; Regehr *et al.*, 2003; Sherwood *et al.*, 2019; Tyson and Charman, 2025).

Being subject to misconduct proceedings or an official inquiry was also identified, given the potential to damage professional integrity and generate lasting psychological harms, including increased PTSD risk and diminished trust in the organisation (Lavis, 2025; Regehr *et al.*, 2003). Impacts are amplified in prolonged cases, which the Police Federation has raised with parliament due to reported emotional and psychological harms to officers, colleagues and families (Police Federation of England and Wales, 2021). Where officers perceive limited support, punitive oversight or leadership indifference, vulnerability intensifies (Police Federation of England and Wales, 2021; Sherwood *et al.*, 2019). The issue is sufficiently pronounced that the UK College of Policing cites professional standards investigations as a risk factor for police suicide, due to isolation, anxiety and despair among those affected (College of Policing, 2024).

Moral injury (MI) was included as an additional adverse career experience. MI has been defined as “traumatic events wherein one perpetrates, fails to prevent or witnesses’ actions that transgress deeply held moral beliefs and expectations” (Litz *et al.*, 2009, p1; Papazoglou *et al.*, 2020). Although historically associated with the military, a growing literature now links MI to policing (Blumberg *et al.*, 2018, 2020; Blumberg and Papazoglou, 2019; Komarovskaya *et al.*, 2011; Papazoglou, 2017; Papazoglou *et al.*, 2019a, 2019b; Papazoglou *et al.*, 2020). The politicisation of policing may heighten MI risk; following the

introduction of elected police and crime commissioners in 2012, it has been argued that there has been an “opening the door for party political ideological dominance” within UK policing (Grieve, 2024). In this context, police services and officers increasingly face moral accusations, including claims of ideologically driven two-tier policing (Chouliaraki and Higgins, 2024). Such accusations are often linked to protest policing (Chouliaraki and Higgins, 2024), but debates around non-crime hate incidents and arrests for ‘online speech’ also contribute. Regardless of the validity of such claims, this polarised environment may increase exposure to moral conflict, including pressures to operate in ways that contradict personal values. This is consequential because MI is associated with depression, compassion fatigue, PTSD and increased suicide risk (Nash *et al.*, 2013; Papazoglou and Chopko, 2017).

Bullying and harassment were also identified as cultural manifestations of organisational adversity and are associated with heightened stress, reduced well-being and increased suicide risk (College of Policing, 2024). This is particularly salient for minority and female officers navigating environments shaped by racism, sexism, misogyny or hyper-masculine norms (Casey, 2023). These dynamics can compound harms from other exposures, reduce workplace cohesion (Wellington, 2021) and are associated with depression, exclusion, psychological distress, burnout, anxiety, emotional exhaustion and disengagement (Acquadro Maran *et al.*, 2022; Demou *et al.*, 2020; Dextras-Gauthier and Marchand, 2018; Foley *et al.*, 2022; Rabe-Hemp, 2008; Sherwood *et al.*, 2019; Wellington, 2021). Such contexts can also foster mental health stigma, discouraging disclosure and treatment-seeking, increasing isolation and limiting opportunities for intervention (Santa Maria *et al.*, 2018; Gutschmidt and Vera, 2021).

Negative leadership and oversight practices represent a further organisational adversity, including micromanagement and intrusive performance surveillance. In this framing, negative leadership is directed at individuals and occurs under the guise of performance management, often protected by policy and therefore difficult to challenge. It is commonly underpinned by poor communication or decision-making perceived as arbitrary, punitive or exclusionary (Jackman *et al.*, 2021; Domingues and Machado, 2017). The issue is widespread, with up to 70% of officers reporting it as a key factor reducing morale and organisational commitment (Wellington, 2021). Persistently negative leadership and intrusive oversight can erode autonomy, initiative, job satisfaction and internal trust, and exacerbate mental health vulnerabilities, including anxiety linked to suicide risk (College of Policing, 2024; Sherwood *et al.*, 2019). It is also associated with reduced productivity and a range of occupational outcomes, including leaveism, absenteeism, presenteeism and increased intention to leave (Kim *et al.*, 2016; Mouzelis, 2017; Olsen *et al.*, 2006; McCreary and Thompson, 2006).

Developing the police adverse career experiences questionnaire

Following the scoping review and thematic analysis, the identified domains and adverse career experiences were translated into a scalable survey instrument. Table 2 details this operationalisation, showing how each adverse career experience was converted into a single item intended to indicate exposure only. This reflects the PACEs survey’s purpose as an exposure screening tool rather than a diagnostic or symptom-based assessment. Consistent with the ACE framework, items were phrased as direct dichotomous (yes/no) questions (e.g. “Have you ever [...]”), to minimise respondent burden and support accessibility and scalability across operational settings. The final instrument comprises 13 items across three domains, with cumulative scoring representing overall exposure burden rather than domain-specific severity.

Discussion

Replication of the adverse childhood experiences development process and utility, versus existing tools

A central aim of this study was to replicate the methodological principles underpinning the ACE framework by identifying common, measurable, high-impact experiences suitable for

Table 2 PACE questions developed based on the scoping review and thematic analysis

Domain	Event	PACE question
Operational adverse experiences	Witnessing/involvement in a death in the line of duty	Have you witnessed or been involved in a death while on duty?
	Being seriously assaulted while on duty	Have you been seriously physically assaulted while on duty?
	Attending a fatal road traffic collision (RTC)	Have you attended a fatal RTC involving a child or multiple fatalities?
	Handling human remains	Have you handled human remains in the line of duty?
	Responding to suicides	Have you been first on scene at a suicide?
Investigative adverse experiences	Death of a colleague	Have you lost a close police colleague in the line of duty, including suicide?
	Investigating the death of a child	Have you investigated the death of a child?
Organisational adverse experiences	Investigating child abuse, rape, and sexual exploitation	Have you investigated child abuse, rape, or sexual exploitation beyond initial response?
	Procedural injustice	Have you experienced serious procedural injustice (unfair or inconsistent organisational treatment)?
	Moral injury	Have you experienced serious moral injury (being asked to act against your values, or exposure to organisational wrongdoing)?
	Prolonged misconduct investigation or inquiry	Have you been subject to a prolonged misconduct investigation or inquiry?
	Bullying and harassment	Have you experienced serious racist, sexist, misogynistic or hyper-masculine bullying/harassment or worked where this was unchallenged?
	Negative leadership and oversight	Have you been subject to excessive oversight or micromanagement that you attribute to negative leadership?

retrospective self-reporting (Felitti *et al.*, 1998; Dube *et al.*, 2003). This has been achieved using a scoping review and thematic analysis to complete the early stages of construct definition and item pool generation for preliminary scale construction (DeVellis and Thorpe, 2021; Boateng *et al.*, 2018), identifying recurrent and consequential adverse career experiences within policing. In line with the ACE approach, the PACE survey prioritises simplicity, measurability and generalisability over comprehensiveness, and is positioned as a scalable screening tool rather than a diagnostic instrument. Thus, it provides an exposure tool spanning operational, investigative and organisational domains, enabling exposure–outcome testing for both health and non-health outcomes through a brief, binary, self-administered format requiring no specialist training. This improves accessibility for organisations without capacity for intensive clinical assessment while retaining analytic utility.

It should be noted however that the PACEs survey is not intended to replace validated clinical instruments and cannot provide the diagnostic precision of PTSD or complex trauma measures. Its value lies in scalable screening. Furthermore, as with ACEs, PACEs focuses on adverse exposures rather than protective or mitigating factors; future work could identify such factors and assess whether combining PACEs with mitigation measures provides a more holistic understanding. Despite these restrictions, the tool addresses the gap in policing measurement by focusing on exposure rather than outcomes.

Application of the police adverse career experiences survey tool

The PACEs survey is best used as an exposure checklist rather than a measure of well-being or psychological state, and is most valuable upstream of health, organisational and career outcomes. It can capture both first-time and cumulative exposure (through repeated or clustered events), which life course and cumulative risk perspectives associate with harm (Ben-Shlomo and Kuh, 2002; Evans *et al.*, 2013; McEwen, 1998) and which the ACEs

literature links to negative outcomes (Felitti *et al.*, 1998; Hughes *et al.*, 2017). This enables systematic cross-referencing of exposure patterns against outcomes across domains, including health outcomes (e.g. ill-health retirement, sickness absence, suicide), organisational outcomes (e.g. misconduct and disciplinary proceedings, public complaints, workplace grievances) and career outcomes (e.g. performance, promotion, transfers). By foregrounding exposures rather than symptoms, the PACEs survey offers a means to identify patterns that may clarify exposure–outcome relationships and support primary prevention by identifying roles/units with concentrated exposure burdens, and secondary prevention by triggering proportionate supportive follow-up for sustained or clustered exposure before distress becomes entrenched.

In practice, the PACE survey achieves this by being deployed as an exposure-based screening mechanism to flag officers, units or roles that warrant further assessment, including follow-up using validated outcome measures and integration with well-being, HR and leadership processes. Where embedded, it will enable both policy and practice to shift towards a trauma-informed approach, where PACEs data could help target evidence-based interventions that buffer against PACE-related outcomes (Raver and McElheran, 2022). Examples include cognitive behavioural therapy for moral injury and trauma-related symptoms (Steenkamp *et al.*, 2011), mindfulness-based interventions for psychological well-being including anxiety and depression (Kukucska *et al.*, 2023), structured stress management and resilience training (Patterson *et al.*, 2012; Lees *et al.*, 2019), shift-scheduling reforms to reduce fatigue risk and improve sleep (Amendola *et al.*, 2011), heart rate variability feedback and physiological regulation training (Cox *et al.*, 2024; Goessl *et al.*, 2017), peer-support and structured post-incident support models (Hunt *et al.*, 2013; Lynch *et al.*, 2025) and organisational justice and leadership reforms associated with improved well-being (Trinkner *et al.*, 2016). Embedding such interventions within a proactive organisational response may also reduce stigma associated with help-seeking by shifting responsibility from the individual to the organisation (Craddock and Telesco, 2022).

Given its simplicity, PACEs could be administered at scale locally or organisation-wide and repeated periodically (e.g. annually or biannually) to support monitoring and evaluation. Repeated measurement could help identify changes in exposure patterns following interventions, training, policy or procedural reform, enabling stronger assessment of preventive impact. For example, reductions in organisational PACEs following leadership training or cultural reform would be expected to align with improved outcomes, while increases in operational or investigative PACEs could indicate emerging risks requiring enhanced welfare provision. In all cases, PACEs should be used to guide supportive intervention rather than punitive monitoring or decision-making.

At this stage, specific PACEs, cumulative score thresholds and exposure ‘profiles’ are not specified. These parameters should be determined empirically through future validation and exposure–outcome studies rather than assumed *a priori*.

Limitations and further research

The primary limitation is the absence of empirical testing. This article is confined to initial instrument development via scoping review and thematic analysis and PACEs has not yet been evaluated against defined outcome groups. Establishing predictive capacity and practical utility therefore requires subsequent validation studies. Planned work will test survey performance and inform iterative refinement of the tool.

The PACEs design also imposes constraints. Although it deliberately mirrors the brevity and binary structure of the ACE framework, this simplicity limits measurement of severity, frequency and duration of exposures. It also does not capture contextual or moderating factors shaping how officers experience and process events, or whether exposures translate into outcomes. For such nuance, established diagnostic and clinical instruments remain more appropriate.

Methodologically, the review was conducted by a single reviewer without formal dual screening. While consistent with exploratory construct development and mitigated through inclusive screening, this may introduce selection bias; future validation studies could incorporate dual screening and agreement procedures to enhance reproducibility. Formal quality appraisal was also not undertaken because the purpose was constructing mapping rather than effect estimation, meaning the PACE taxonomy may reflect evidence of variable rigour. Future iterations could therefore incorporate systematic review or meta-analytic approaches where feasible to strengthen the evidential foundation and improve defensibility.

Conclusion

This study provides an initial attempt to systematically identify and categorise PACEs and translate them into a preliminary screening tool modelled on the ACE framework. By synthesising evidence across operational, investigative, and organisational domains, PACEs offers a simple, scalable approach to capturing cumulative policing adversity and supporting exposure–outcome examination across health and non-health outcomes. The tool is not intended to replace validated clinical instruments; rather, it is designed to complement them by enabling accessible exposure screening to inform trauma-informed policy and welfare interventions. Empirical validation is now required to test predictive value and refine application, but this study establishes a foundation for advancing understanding of policing adversity and strengthening organisational resilience.

Implications for practice

- Flags cumulative exposure before health, performance or conduct issues emerge.
- Brief yes/no format supports routine, large-scale use.
- Complementary: Adds exposure context to well-being, OH and HR metrics; not a diagnostic tool.
- Supports exposure-informed understanding of well-being and outcomes over time.
- Aggregated results can identify higher-exposure roles, units and practices to guide support and reform.
- Repeat use can track exposure trends following leadership, cultural, investigative or operational change.
- Enables future dose–response, mitigation and protective-factor analyses.

References

- Acquadro Maran, D., Magnavita, N. and Garbarino, S. (2022), "Identifying organizational stressors that could be a source of discomfort in police officers: a thematic review", *International Journal of Environmental Research and Public Health*, Vol. 19 No. 6, p. 3720.
- Aldrich, R.S. and Cerel, J. (2022), "Occupational suicide exposure and impact on mental health: examining differences across helping professions", *OMEGA - Journal of Death and Dying*, Vol. 85 No. 1, pp. 23-37.
- Amendola, K.L., Weisburd, D., Hamilton, E., Jones, G., Slipka, M., Heitmann, A. and Tarkghen, E. (2011), *The Shift Length Experiment: What we Know about 8-, 10-, and 12-Hour Shifts in Policing*, Police Foundation, Washington, DC.
- Anunciação, L., Marques, L., Andrade, L.D., Soares, A.C.C., Cruz, R.M. and Lipp, M.E.N. (2022), "Psychometric evidence for the lipp' adult stress symptoms inventory", *Paidéia (Ribeirão Preto)*, Vol. 32, p. e3235.

- Arksey, H. and O'Malley, L. (2005), "Scoping studies: towards a methodological framework", *International Journal of Social Research Methodology*, Vol. 8 No. 1, pp. 19-32.
- Backteman-Erlanson, S., Jacobsson, A., Öster, I. and Brulin, C. (2011), "Caring for traffic accident victims: the stories of nine male police officers", *International Emergency Nursing*, Vol. 19 No. 2, pp. 90-95.
- Basto-Pereira, M., Gouveia-Pereira, M., Pereira, C.R., Barrett, E.L., Lawler, S., Newton, N. and Sakulku, J. (2022), "The global impact of adverse childhood experiences on criminal behavior: a cross-continental study", *Child Abuse & Neglect*, Vol. 124, p. 105459.
- Battaglia, A.M., Protopopescu, A., Boyd, J.E., Lloyd, C., Jetly, R., O'Connor, C. and McKinnon, M.C. (2019), "The relation between adverse childhood experiences and moral injury in the Canadian armed forces", *European Journal of Psychotraumatology*, Vol. 10 No. 1, p. 1546084.
- Ben-Shlomo, Y. and Kuh, D. (2002), "A life course approach to chronic disease epidemiology: conceptual models, empirical challenges and interdisciplinary perspectives", *International Journal of Epidemiology*, Vol. 31 No. 2, pp. 285-293.
- Bettany-Saltikov, J. (2016), *How to Do a Systematic Literature Review in Nursing: A Step-by-Step Guide*, 2nd ed. McGraw Hill Open University Press, London.
- Blumberg, D.M., Papazoglou, K. and Creighton, S. (2018), "Bruised badges: the moral risks of police work and a call for officer wellness", *International Journal of Emergency Mental Health and Human Resilience*, Vol. 20 No. 2, pp. 1-14, doi: [10.4172/1522-4821.1000394](https://doi.org/10.4172/1522-4821.1000394).
- Blumberg, D.M., Papazoglou, K. and Creighton, S. (2020), "The moral risks of policing", in *POWER: Police Officer Wellness, Ethics, & Resilience*, Elsevier, Cambridge, MA.
- Blumberg, D. and Papazoglou, K. (2019), "A brief introduction to multiple psychic wounds in police work", *Crisis Stress Hum. Resil.*, Vol. 1, pp. 28-31.
- Boag-Munroe, F. (2017), *Detectives Survey 2017: Avon and Somerset Constabulary (Research & Policy Support Report R065/2017)*, Police Federation of England and Wales.
- Boateng, G.O., Neilands, T.B., Frongillo, E.A., Melgar-Quinonez, H.R. and Young, S.L. (2018), "Best practices for developing and validating scales for health, social, and behavioral research: a primer", *Frontiers in Public Health*, Vol. 6, p. 149.
- Braun, V. and Clarke, V. (2006), "Using thematic analysis in psychology", *Qualitative Research in Psychology*, Vol. 3 No. 2, pp. 77-101.
- Carlier, I.V., Lamberts, R.D. and Gersons, B.P. (1997), "Risk factors for posttraumatic stress symptomatology in police officers: a prospective analysis", *The Journal of Nervous & Amp Mental Disease*, Vol. 185 No. 8, pp. 498-506.
- Carpenter, B., Tait, G., Quadrelli, C. and Thompson, I. (2016), "Investigating death: the emotional and cultural challenges for police", *Policing and Society*, Vol. 26 No. 6, pp. 698-712.
- Casey, L. (2023), *Baroness Casey Review: Final Report: An Independent Review into the Standards of Behaviour and Internal Culture of the Metropolitan Police Service*, Baroness Casey of Blackstock DBE CB.
- Cerel, J., Jones, B., Brown, M., Weisenhorn, D.A. and Patel, K. (2019), "Suicide exposure in law enforcement officers. Suicide", *Suicide and Life-Threatening Behavior*, Vol. 49 No. 5, pp. 1281-1289.
- Chopko, B.A., Palmieri, P.A. and Adams, R.E. (2015), "Critical incident history questionnaire replication: frequency and severity of trauma exposure among officers from small and midsize police agencies", *Journal of Traumatic Stress*, Vol. 28 No. 2, pp. 157-161.
- Chouliaraki, L. and Higgins, K. (2024), *The Truth about "Two-Tier Policing"*, British Politics and Policy at LSE.
- Cloitre, M., Hyland, P., Prins, A. and Shevlin, M. (2021), "The international trauma questionnaire (ITQ) measures reliable and clinically significant treatment-related change in PTSD and complex PTSD", *European Journal of Psychotraumatology*, Vol. 12 No. 1, p. 1930961.
- Cohen, S., Kamarck, T. and Mermelstein, R.O.B.I.N. (1994), *Perceived Stress Scale (PSS)*, Mind Garden. doi: [10.1007/978-3-030-77644-2_91-1](https://doi.org/10.1007/978-3-030-77644-2_91-1).
- College of Policing (2024), *Working Together to Prevent Suicide in the Police Service: National Action Plan for Suicide Prevention and Postvention in England and Wales*, College of Policing.
- Cooper, C.L., Sloan, S. and Williams, S. (1988), *Occupational Stress Indicator*, Work & Stress.

- Cox, C., Yates, J., O'Brien, F., Pajon, L., Farrell, A., Ward, M. and McNamara-Catalano, I. (2024), "Wearable technology: a wellbeing option for serving police officers and staff? A comparison of results of a pilot study with firearms officers and a group of mixed officers and staff", *International Journal of Environmental Research and Public Health*, Vol. 21 No. 2, p. 186.
- Craddock, T.B. and Telesco, G. (2022), "Police stress and deleterious outcomes: efforts towards improving police mental health", *Journal of Police and Criminal Psychology*, Vol. 37 No. 1, pp. 173-182.
- Davidson, L., Dennis, A., Theodoropoulou, A., Carter, H., Amlôt, R. and Hesketh, I. (2023), "'I don't want to be a victim again': the impact of repeat assault on police officers", *Frontiers in Psychology*, Vol. 14, p. 1145944.
- Demou, E., Hale, H. and Hunt, K. (2020), "Understanding the mental health and wellbeing needs of police officers and staff in Scotland", *Police Practice and Research*, Vol. 21 No. 6, pp. 702-716.
- DeVellis, R.F. and Thorpe, C.T. (2021), *Scale Development: Theory and Applications*, Sage publications.
- Dextras-Gauthier, J. and Marchand, A. (2018), "Does organizational culture play a role in the development of psychological distress?", *The International Journal of Human Resource Management*, Vol. 29 No. 12, pp. 1920-1949.
- Domingues, I.P. and Machado, J.C. (2017), "The loosely coupled factors of organizational stress in police forces", *Policing: An International Journal of Police Strategies & Management*, Vol. 40 No. 4, pp. 657-671.
- Drew, J.M., Keech, J.J. and Martin, S. (2025), "Will I stay or will I go? Exploring job demand stress, organizational justice, and psychological health in decisions to leave the police agency or profession", *American Journal of Criminal Justice*, Vol. 50 No. 5, pp. 1-24.
- Drew, J.M., Sargeant, E. and Martin, S. (2024), "Why do police consider leaving the profession? The interplay between job demand stress, burnout, psychological distress, and commitment", *Policing: A Journal of Policy and Practice*, Vol. 18, p. paae036.
- Dube, S.R., Felitti, V.J., Dong, M., Chapman, D.P., Giles, W.H. and Anda, R.F. (2003), "Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: the adverse childhood experiences study", *Pediatrics*, Vol. 111 No. 3, pp. 564-572.
- Ellrich, K. and Baier, D. (2017), "Post-traumatic stress symptoms in police officers following violent assaults: a study on general and police-specific risk and protective factors", *Journal of Interpersonal Violence*, Vol. 32 No. 3, pp. 331-356.
- Evans, G.W., Li, D. and Whipple, S.S. (2013), "Cumulative risk and child development", *Psychological Bulletin*, Vol. 139 No. 6, p. 1342.
- Feldt, T., Rantanen, J., Hyvönen, K., Mäkikangas, A., Huhtala, M., Pihlajasaari, P. and Kinnunen, U. (2014), "The 9-item bergen burnout inventory: factorial validity across organizations and measurements of longitudinal data", *Industrial Health*, Vol. 52 No. 2, pp. 102-112.
- Felitti, V.J., Anda, R.F., Nordenberg, D., Williamson, D.F., Spitz, A.M., Edwards, V. and Marks, J.S. (1998), "Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: the adverse childhood experiences (ACE) study", *American Journal of Preventive Medicine*, Vol. 14 No. 4, pp. 245-258.
- Fergusson, D.M., McLeod, G.F. and Horwood, L.J. (2013), "Childhood sexual abuse and adult developmental outcomes: findings from a 30-year longitudinal study in New Zealand", *Child Abuse & Neglect*, Vol. 37 No. 9, pp. 664-674.
- Finkelhor, D. (2018), "Screening for adverse childhood experiences (ACEs): cautions and suggestions", *Child Abuse & Neglect*, Vol. 85, pp. 174-179.
- Fitzgerald, M. and Bishop, A. (2025), "Challenging the use of the overall adverse childhood experiences (ACEs) score: comparing total ACEs, maltreatment, and household dysfunction on mental health problems among White, African American, and Native American women under correctional control", *American Journal of Orthopsychiatry*, Vol. 95 No. 4, p. 335.
- Foley, J., Hassett, A. and Williams, E. (2022), "Getting on with the job': a systematised literature review of secondary trauma and post-traumatic stress disorder (PTSD) in policing within the United Kingdom (UK)", *The Police Journal*, Vol. 95 No. 1, pp. 224-252.
- Foley, J., Jones, F., Hassett, A. and Williams, E. (2024), "Holding onto trauma? The prevalence and predictors of PTSD, anxiety and depression in police officers working with child abuse, rape and sexual exploitation victims", *The Police Journal*, Vol. 97 No. 2, pp. 370-393.

- Gerber, M., Hartmann, T., Brand, S., Holsboer-Trachsler, E. and Pühse, U. (2010), "The relationship between shift work, perceived stress, sleep and health in swiss police officers", *Journal of Criminal Justice*, Vol. 38 No. 6, pp. 1167-1175.
- Gershon, R.R., Barocas, B., Canton, A.N., Li, X. and Vlahov, D. (2009), "Mental, physical, and behavioral outcomes associated with perceived work stress in police officers", *Criminal Justice and Behavior*, Vol. 36 No. 3, pp. 275-289.
- Goessl, V.C., Curtiss, J.E. and Hofmann, S.G. (2017), "The effect of heart rate variability biofeedback training on stress and anxiety: a meta-analysis", *Psychological Medicine*, Vol. 47 No. 15, pp. 2578-2586.
- Gomes, A.R., Faria, S. and Lopes, H. (2016), "Stress and psychological health: testing the mediating role of cognitive appraisal", *Western Journal of Nursing Research*, Vol. 38 No. 11, pp. 1448-1468.
- Goodman, A.M. (1990), "A model for police officer burnout", *Journal of Business and Psychology*, Vol. 5 No. 1, pp. 85-99.
- Grant, M.J. and Booth, A. (2009), "A typology of reviews: an analysis of 14 review types and associated methodologies", *Health Information & Libraries Journal*, Vol. 26 No. 2, pp. 91-108.
- Gray, M.J., Litz, B.T., Hsu, J.L. and Lombardo, T.W. (2004), "Psychometric properties of the life events checklist", *Assessment*, Vol. 11 No. 4, pp. 330-341.
- Greene, C.L. (2001), "Human remains and psychological impact on police officers: excerpts from psychiatric observations", *Australasian Journal of Disaster and Trauma Studies*.
- Grieve, J.G. (2024), "25 Years of increased politicisation of UK policing reform", *International Journal of Police Science & Management*, Vol. 26 No. 4, pp. 460-469.
- Gutschmidt, D. and Vera, A. (2021), "Stress and health in the police: a conceptual framework", *Policing: A Journal of Policy and Practice*, Vol. 15 No. 2, pp. 1306-1315.
- Halford, E. (2025), "A preliminary exploration of the association between adverse childhood experiences and police misconduct", *The Police Journal*, p. 0032258X251357492.
- Hartley, T.A., Sarkisian, K., Violanti, J.M., Andrew, M.E. and Burchfiel, C.M. (2013), "PTSD symptoms among police officers: associations with frequency, recency, and types of traumatic events", *International Journal of Emergency Mental Health*, Vol. 15 No. 4, p. 241.
- Henry, V.E. (2004), *Death Work: Police, Trauma, and the Psychology of Survival*, Oxford University Press.
- Her Majesty's Inspectorate of Constabulary (2011), "Demanding times: the front line and police visibility", HMIC, available at: <https://assets-hmicfrs.justiceinspectores.gov.uk/uploads/demanding-times-062011.pdf>
- Holmes, J., Boulton, L. and Panter, H. (2022), "Understanding the role of uncertainty and anxiety in police decision-making during the investigation of sudden unexpected deaths in children", *Journal of Investigative Psychology and Offender Profiling*, Vol. 19 No. 2, pp. 58-72.
- Houdmont, J. and Elliot-Davies, M. (2016), "Police federation of England and Wales 2016 officer demand, capacity, and welfare survey", *Initial Report-Descriptive Results*, Police Federation of England and Wales, London.
- Houdmont, J., Kerr, R. and Randall, R. (2012), "Organisational psychosocial hazard exposures in UK policing: management standards indicator tool reference values", *Policing: An International Journal of Police Strategies & Management*, Vol. 35 No. 1, pp. 182-197.
- Hughes, K., Bellis, M.A., Hardcastle, K.A., Sethi, D., Butchart, A., Mikton, C. and Dunne, M.P. (2017), "The effect of multiple adverse childhood experiences on health: a systematic review and meta-analysis", *The Lancet Public Health*, Vol. 2 No. 8, pp. e356-e366.
- Hunt, E., Jones, N., Hastings, V. and Greenberg, N. (2013), "TRiM: an organizational response to traumatic events in Cumbria constabulary", *Occupational Medicine*, Vol. 63 No. 8, pp. 549-555.
- Hurrell, A., Draycott, S. and Andrews, L. (. (2018), "Secondary traumatic stress in police officers investigating childhood sexual abuse", *Policing: An International Journal*, Vol. 41 No. 5, pp. 636-650, doi: [10.1108/PIJPSM-08-2016-0131](https://doi.org/10.1108/PIJPSM-08-2016-0131).
- Jackman, P.C., Clay, G., Coussens, A.H., Bird, M.D. and Henderson, H. (2021), "We are fighting a tide that keeps coming against us': a mixed method exploration of stressors in an english county police force", *Police Practice and Research*, Vol. 22 No. 1, pp. 370-388.

- Karlsson, I. and Christianson, S.Å. (2003), "The phenomenology of traumatic experiences in police work", *Policing: An International Journal of Police Strategies & Management*, Vol. 26 No. 3, pp. 419-438.
- Khan, K., Kunz, R., Kleijnen, J. and Antes, G. (2011), *Systematic Reviews to Support Evidence-Based Medicine*, Crc press.
- Kim, J.L., Wells, W., Vardalis, J.J., Johnson, S.K. and Lim, H. (2016), "Gender difference in occupational stress: a study of the South Korean national police agency", *International Journal of Law, Crime and Justice*, Vol. 44, pp. 163-182.
- Komarovskaya, I., Brown, A.D., Galatzer-Levy, I.R., Madan, A., Henn-Haase, C., Teater, J. and Chemtob, C.M. (2014), "Early physical victimization is a risk factor for posttraumatic stress disorder symptoms among Mississippi police and firefighter first responders to Hurricane Katrina", *Psychological Trauma: Theory, Research, Practice, and Policy*, Vol. 6 No. 1, p. 92.
- Komarovskaya, I., Maguen, S., McCaslin, S.E., Metzler, T.J., Madan, A., Brown, A.D., Galatzer-Levy, I.R., Henn-Haase, C. and Marmar, C.R. (2011), "The impact of killing and injuring others on mental health symptoms among police officers", *Journal of Psychiatric Research*, Vol. 45 No. 10, pp. 1332-1336, doi: [10.1016/j.jpsychires.2011.05.004](https://doi.org/10.1016/j.jpsychires.2011.05.004).
- Kukucska, D., Whitehall, J., Shorter, G.W., Howlett, N., Wyld, K. and Chater, A.M. (2023), "A systematic review of positive psychology interventions (PPIs) to improve the health behaviours, psychological wellbeing and/or physical health of police staff", *Journal of Police and Criminal Psychology*, Vol. 38 No. 3, pp. 728-742.
- Lacey, R.E. and Minnis, H. (2020), "Practitioner review: twenty years of research with adverse childhood experience scores—advantages, disadvantages and applications to practice", *Journal of Child Psychology and Psychiatry*, Vol. 61 No. 2, pp. 116-130.
- Lavis, T.E. (2025), "Beyond allegations: the lived experiences of serving police officers who have undergone internal misconduct investigations", Doctoral dissertation, City St George's, University of London.
- Lees, T., Elliott, J.L., Gunning, S., Newton, P.J., Rai, T. and Lal, S. (2019), "A systematic review of the current evidence regarding interventions for anxiety, PTSD, sleepiness and fatigue in the law enforcement workplace", *Industrial Health*, Vol. 57 No. 6, pp. 655-667.
- Lieberman, A.M., Best, S.R., Metzler, T.J., Fagan, J.A., Weiss, D.S. and Marmar, C.R. (2002), "Routine occupational stress and psychological distress in police", *Policing: An International Journal of Police Strategies & Management*, Vol. 25 No. 2, pp. 421-441.
- Litz, B.T., Stein, N., Delaney, E., Lebowitz, L., Nash, W.P., Silva, C. and Maguen, S. (2009), "Moral injury and moral repair in war veterans: a preliminary model an intervention strategy", *Clinical Psychology Review*, Vol. 29 No. 8, pp. 695-706, doi: [10.1016/j.cpr.2009.07.003](https://doi.org/10.1016/j.cpr.2009.07.003)
- Lynch, S., Muibu, D., Ferguson, E. and Kreutzer, W. (2025), "Peer support programs and law enforcement psychological strain: a systematic review", *Policing: An International Journal*, Vol. 48 No. 6, pp. 1207-1226.
- McCarty, W.P., Aldirawi, H., Dewald, S. and Palacios, M. (2019), "Burnout in blue: an analysis of the extent and primary predictors of burnout among law enforcement officers in the United States", *Police Quarterly*, Vol. 22 No. 3, pp. 278-304.
- McCreary, D.R. and Thompson, M.M. (2006), "Development of two reliable and valid measures of stressors in policing: the operational and organizational police stress questionnaires", *International Journal of Stress Management*, Vol. 13 No. 4, p. 494.
- McDonald, A.R., Prost, S.G., Plassmeyer, M. and Oehme, K. (2022), "The contribution of adverse childhood experiences to work-related stressors among law enforcement officers", *Policing: A Journal of Policy and Practice*, Vol. 16 No. 1, pp. 44-62.
- McEwen, B.S. (1998), "Protective and damaging effects of stress mediators", *The New England Journal of Medicine*, Vol. 338 No. 3, pp. 171-179.
- MacEachern, A.D., Dennis, A.A., Jackson, S. and Jindal-Snape, D. (2019), "Secondary traumatic stress: prevalence and symptomology amongst detective officers investigating child protection cases", *Journal of Police and Criminal Psychology*, Vol. 34 No. 2, pp. 165-174.
- Maslach, C., Schaufeli, W.B. and Leiter, M.P. (2001), "Job burnout", *Annual Review of Psychology*, Vol. 52 No. 1, pp. 397-422.

- Miller, J.K., Brewin, C.R., Soffia, M., Elliott-Davies, M., Burchell, B.J. and Peart, A. (2023), "The development of a UK police traumatic events checklist", *The Police Journal*, Vol. 95 No. 1, pp. 207-223.
- Montero-Marín, J. and García-Campayo, J. (2010), "A newer and broader definition of burnout: validation of the 'burnout clinical subtype questionnaire (BCSQ-36)'", *BMC Public Health*, Vol. 10 No. 1, p. 302.
- Mouzelis, N.P. (2017), *Organizational Pathology: Life and Death of Organizations*, Routledge.
- Mueller, S. and Tschan, F. (2011), "Consequences of client-initiated workplace violence: the role of fear and perceived prevention", *Journal of Occupational Health Psychology*, Vol. 16 No. 2, p. 217.
- Nash, W.P., Carper, T.L.M., Mills, M.A., Au, T., Goldsmith, A. and Litz, B.T. (2013), "Psychometric evaluation of the moral injury events scale", *Military Medicine*, Vol. 178 No. 6, pp. 646-652.
- Olsen, O.K., Eid, J. and Johnsen, B.H. (2006), "Moral behavior and transformational leadership in norwegian naval cadets", *Military Psychology*, Vol. 18 No. sup1, pp. S37-S56.
- Otte, C., Neylan, T.C., Pole, N., Metzler, T., Best, S., Henn-Haase, C. and Marmar, C.R. (2005), "Association between childhood trauma and catecholamine response to psychological stress in police academy recruits", *Biological Psychiatry*, Vol. 57 No. 1, pp. 27-32.
- Papazoglou, K. (2017), "The examination of different pathways leading towards police traumatization: exploring the role of moral injury and personality in police compassion fatigue", Ph.D. thesis, Dissertation Abstracts International: Section B: The Sciences and Engineering, University of Toronto, Toronto, ON, p. 79.
- Papazoglou, K. and Chopko, B. (2017), "The role of moral suffering (moral distress and moral injury) in police compassion fatigue and PTSD: an unexplored topic", *Frontiers in Psychology*, Vol. 8, p. 1999.
- Papazoglou, K., Blumberg, D.M., Chiongbian, V.B., Tuttle, B.M., Kamkar, K., Chopko, B. and Koskelainen, M. (2020), "The role of moral injury in PTSD among law enforcement officers: a brief report", *Frontiers in Psychology*, Vol. 11, p. 310.
- Papazoglou, K., Blumberg, D., Briones-Chiongbian, V., Russo, C. and Koskelainen, M. (2019a), "Exploring the roles of moral injury and personality in police traumatization", *Crisis Stress Hum. Resil.*, Vol. 1, pp. 32-56.
- Papazoglou, K., Bonanno, G., Blumberg, D. and Keesee, T. (2019b), "Moral injury in police work", *FBI Law Enforce. Bull.*, Vol. 9, pp. 1-8.
- Parkitny, L. and McAuley, J. (2010), "The depression anxiety stress scale (DASS)", *Journal of Physiotherapy*, Vol. 56 No. 3, p. 204.
- Patterson, G.T. (2001), "Reconceptualizing traumatic incidents experienced by law enforcement personnel", *Australasian Journal of Disaster and Trauma Studies*.
- Patterson, G.T., Chung, I.W. and Swan, P.G. (2012), "The effects of stress management interventions among police officers and recruits", *Campbell Systematic Reviews*, Vol. 8 No. 1, pp. 1-54.
- Police Federation of England and Wales (2021), "Federation lobbying for sanctions on lengthy police misconduct investigations", available at: www.polfed.org/news/latest-news/2021/federation-lobbying-for-sanctions-on-lengthy-police-misconduct-investigations/PFEW Conduct and Performance Chair gives evidence to MPs as part of IOPC inquiry
- Police Federation of England and Wales Social Market Foundation (2025), Research Report R001/2025. Pay and Morale Survey 2024 – Headline Report. Police Federation of England and Wales.
- Purba, A. and Demou, E. (2019), "The relationship between organisational stressors and mental wellbeing within police officers: a systematic review", *BMC Public Health*, Vol. 19 No. 1, p. 1286.
- Rabe-Hemp, C. (2008), "Survival in an 'all boys club': policewomen and their fight for acceptance", *Policing: An International Journal of Police Strategies & Management*, Vol. 31 No. 2, pp. 251-270.
- Rabichuk, S.B., Williamson, L. and Frankel, S. (2025), "Stress experiences of women in policing: a scoping review", *International Journal of Police Science & Management*, Vol. 27 No. 1, pp. 63-77.
- Ramos-Galarza, C., Flores, F., Argoti, T., Díaz-Guerra, D.D., Hernández-Lugo, M.D.L.C. and Broche-Pérez, Y. (2025), "Understanding the interplay between stress, anxiety, and depression and their impact on health in traffic police officers", *Frontiers in Psychiatry*, Vol. 16, p. 1580673.

- Raver, J.L. and McElheran, M. (2022), "A trauma-informed approach is needed to reduce police misconduct", *Industrial and Organizational Psychology*, Vol. 15 No. 4, pp. 583-587.
- Regehr, C., Johannis, D., Dimitropoulos, G., Bartram, C. and Hope, G. (2003), "The police officer and the public inquiry: a qualitative inquiry into the aftermath of workplace trauma", *Brief Treatment and Crisis Intervention*, Vol. 3 No. 4.
- Roach, J., Sharratt, K., Cartwright, A. and Skou Roer, T. (2018), "Cognitive and emotional stressors of child homicide investigations on UK and danish police investigators", *Homicide Studies*, Vol. 22 No. 3, pp. 296-320.
- Roth, S.L., Andrews, K., Protopopescu, A., Lloyd, C., O'Connor, C., Losier, B.J., Lanius, R.A. and McKinnon, M.C. (2022), "Mental health symptoms in public safety personnel: examining the effects of adverse childhood experiences and moral injury", *Child Abuse & Neglect*, Vol. 123, p. 105394.
- Rudofossi, D. and Lund, D. (2017), *A Cop Doc's Guide to Public Safety Complex Trauma Syndrome: Using Five Police Personality Styles*, Routledge.
- Santa Maria, A., Wörfel, F., Wolter, C., Gusy, B., Rotter, M., Stark, S. and Renneberg, B. (2018), "The role of job demands and job resources in the development of emotional exhaustion, depression, and anxiety among police officers", *Police Quarterly*, Vol. 21 No. 1, pp. 109-134.
- Sherwood, L., Hegarty, S., Vallieres, F., Hyland, P., Murphy, J., Fitzgerald, G. and Reid, T. (2019), "Identifying the key risk factors for adverse psychological outcomes among police officers: a systematic literature review", *Journal of Traumatic Stress*, Vol. 32 No. 5, pp. 688-700.
- Spielberger, C.D. and Reheiser, E.C. (2020), "Measuring occupational stress: the job stress survey", In *Occupational Stress*, CRC Press, pp. 51-69.
- Steenkamp, M.M., Litz, B.T., Gray, M.J., Lebowitz, L., Nash, W., Conoscenti, L. and Lang, A. (2011), "A brief exposure-based intervention for service members with PTSD", *Cognitive and Behavioral Practice*, Vol. 18 No. 1, pp. 98-107.
- Stephens, C. and Miller, I. (1998), "Traumatic experiences and post-traumatic stress disorder in the New Zealand police", *Policing: An International Journal of Police Strategies & Management*, Vol. 21 No. 1, pp. 178-191.
- Trinkner, R., Tyler, T.R. and Goff, P.A. (2016), "Justice from within: the relations between a procedurally just organizational climate and police organizational efficiency, endorsement of democratic policing, and officer well-being", *Psychology, Public Policy, and Law*, Vol. 22 No. 2, p. 158.
- Turgoose, D., Glover, N., Barker, C. and Maddox, L. (2017), "Empathy, compassion fatigue, and burnout in police officers working with rape victims", *Traumatology*, Vol. 23 No. 2, p. 205.
- Tyson, J. and Charman, S. (2025), "Leaving the table: organisational (in) justice and the relationship with police officer retention", *Criminology & Criminal Justice*, Vol. 25 No. 4, pp. 1016-1032.
- Violanti, J. (1999), "Death on duty: police survivor trauma", *Police Trauma: Psychological Aftermath of Civilian Combat*, pp. 139-158.
- Violanti, J.M. and Gehrke, A. (2004), "Police trauma encounters: precursors of compassion fatigue", *International Journal of Emergency Mental Health*, Vol. 6 No. 2, pp. 75-80.
- Violanti, J.M., Andrew, M.E., Burchfiel, C.M., Dorn, J., Hartley, T. and Miller, D.B. (2006), "Posttraumatic stress symptoms and subclinical cardiovascular disease in police officers", *International Journal of Stress Management*, Vol. 13 No. 4, p. 541.
- Violanti, J.M., Andrew, M., Burchfiel, C.M., Hartley, T.A., Charles, L.E. and Miller, D.B. (2007), "Post-traumatic stress symptoms and cortisol patterns among police officers", *Policing: An International Journal of Police Strategies & Management*, Vol. 30 No. 2, pp. 189-202.
- Violanti, J.M., Mnatsakanova, A., Gu, J.K., Service, S. and Andrew, M.E. (2021), "Adverse childhood experiences and police mental health", *Policing: An International Journal*, Vol. 44 No. 6, pp. 1014-1030.
- Vuorensyrjä, M. and Mälkiä, M. (2011), "Nonlinearity of the effects of police stressors on police officer burnout", *Policing: An International Journal of Police Strategies & Management*, Vol. 34 No. 3, pp. 382-402.
- Weathers, F.W., Bovin, M.J., Lee, D.J., Sloan, D.M., Schnurr, P.P., Kaloupek, D.G. and Marx, B.P. (2018), "The clinician-administered PTSD scale for DSM-5 (CAPS-5): development and initial psychometric evaluation in military veterans", *Psychological Assessment*, Vol. 30 No. 3, p. 383.

Weiss, D.S., Brunet, A., Best, S.R., Metzler, T.J., Liberman, A., Pole, N. and Marmar, C.R. (2010), "Frequency and severity approaches to indexing exposure to trauma: the critical incident history questionnaire for police officers", *Journal of Traumatic Stress*, Vol. 23 No. 6, pp. 734-743.

Wellington, N. (2021), *Police Federation of England and Wales: Demand, Capacity and Welfare Survey 2020*, Police Federation of England and Wales.

Yeterian, J.D., Berke, D.S., Carney, J.R., McIntyre-Smith, A., St. Cyr, K. and King, L, Moral Injury Outcomes Project Consortium (2019), "Defining and measuring moral injury: rationale, design, and preliminary findings from the moral injury outcome scale consortium", *Journal of Traumatic Stress*, Vol. 32 No. 3, pp. 363-372.

Appendix

Table A1 Scoping review search keywords used for boolean search strings

<i>Operational exposure</i>	<i>Occupational exposure</i>	<i>Health outcomes</i>	<i>Occupational outcomes</i>
Armed confrontation	Administration	Alcohol misuse	Absence
Assault	Bureaucracy	Anxiety	Betrayal
Child death	Career development	Avoidance	Corruption/misconduct
Child sexual exploitation (CSE)	Communication	Burnout	Demotion
Critical incident	Culture	Compassion fatigue	Errors/mistakes
Death	Demand	Depression	Early/medical retirement
Disaster victim identification (DVI)	Discrimination	Disease	Isolation/marginalisation
Domestic violence	Harassment	Emotion suppression	Lack of recognition
Exploitation	Injustice	Exhaustion	Leaveism
Firearms	Lack of control	Fatigue	Litigation/disciplinary action
Gun	Lack of downtime	Flashbacks / intrusive images	Performance
Handling human remains	Leadership	Hypervigilance	Presenteeism
Indecent images of children (IIOC)	Managerialism	Illness	Promotion
Kidnap/hostage	Media scrutiny	Maladaptive coping	Resignation
Knife	Meetings	Mental health	Transfer
Mass casualty	Organisational change	Numbing	Turnover/attrition
Missing persons	Organisational justice	Pain	Whistleblowing
Post-Mortem	Oversight	Panic	
Rape	Paperwork	PTSD/post-traumatic stress disorder	
Rape/serious sexual offences (RASSO)	Performance review/PDR	Secondary/vicarious trauma	
Road traffic collision (RTC)	Policy	Sleep disturbance/insomnia	
Shooting	Poor supervision	Stress	
Slavery	Procedural justice	Substance misuse	
Stabbing	Resources	Trauma	
Sudden death of a child (SUDC)	Role ambiguity	Well-being	
Suicide	Role conflict	Withdrawal	
Terrorism	Targeting		
Violence	Unfairness		
	Understaffing		
	Unsocial hours/shift work		
	Workload		

Corresponding author

Eric Halford can be contacted at: ehalford@ra.ac.ae

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