



Thin Blue Line? Mental Resilience, Trauma-Exposure and Wellbeing of Degree Apprenticeship Police Trainees in England

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Abstract

This original, rigorous study examines mental resilience of trainee police officers in England ($N=101$), undertaking a new Degree Apprenticeship during employment, in the first such research using the *full* Connor-Davidson Resilience Scale (CD-RISC-25). The quantitative online study also used mental wellbeing Clinical Outcomes in Routine Evaluation (CORE-10) and Trauma History Screen (THS-13) (amended) validated scales. The study makes a novel contribution to knowledge, finding there was no significant relationship between exposure to trauma compared to both resilience and distress levels; police trainees report lower mean resilience compared to the public, with high trauma exposure; a third reported moderate to severe distress scores, only *occasionally* having someone for support. Statistically significant results ($p \leq .05$) showed that single trainees had higher distress scores than those in committed relationships. Year 1 trainees had significantly higher resilience and lower distress than year 2. Longer service has a negative correlation with exposure to traumatic events. No significant differences were found between gender against all scales. There was a significant relationship between resilience and distress so that higher reported resilience meant lower reported distress. Results can be applied to Lazarus and Folkman's (1984) Transactional Theory of Stress and understood within the context of UK police occupational culture theory (Reiner, 1989). These new, important implications warrant targeted support to improve officers' resilience and reduce distress, as well as further study.

Keywords Police · Resilience · Mental health · Trauma exposure · Apprenticeships

Introduction and Literature

We can have tremendous capacity to deal with significant sources of stress, yet how easily we adapt to traumatic situations could be based on how resilient we are. That is, to what extent we can negotiate, manage and acclimatize to difficult conditions. Social psychologists have defined resilience as how we effectively negotiate and adapt to substantial sources of trauma or stress. Resources within us, our life, and environment assist our capacity to “bounce back” against adversity (Windle 2011 – also, see Rutter 1985). This definition

emphasizes resilience as an ongoing process of adaptation, rather than a fixed trait, and a lack of mental flexibility can lead to people becoming impulsive, anxious and threatening.

Police officers face significant exposure to trauma, so it matters for their psychological wellbeing to understand their mental resilience to monitor and build their mental strength, as suggested by Brewin et al. (2022). Literature reveals gaps in police trainee research, specifically for mental resilience in England. Our study is the first psychological research that uses the *full* CD-RISC-25 (Connor and Davidson 2003) English-language scale in this regard, for diagnostic validity. Moreover, it is ripe to explore how police occupational culture theory in the UK might exacerbate coping, such as “us and them” mentality, stigma of support-seeking and sense of “mission” (Reiner 1989), especially since British police education is undergoing radical change (Rogers and Gravelle 2019).

Police recruits go through a 3-year police constable apprenticeship degree (PCDA), partly delivered on a university campus through a focus on law, latest research, critical thinking and self-reflection and partly with the police

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employer who teaches practical skills such as controlling suspects and driving skills (Hough and Stanko 2020; Hunter and May 2020; Rogers and Gravelle 2019; Williams et al. 2019). Criticism of the PCDA is rather than driving professionalism, it merely shifts training to a different building, and there is some resentment from veteran officers (Brown 2018; Hough and Stanko 2020; Hunter and May 2020; Rogers et al. 2022). According to CD-RISC-25 data presented by Allan, McKenna and Dominey (2013), English university students ($N=1534$) have lower resilience ($M = 75$) than the general US public ($M = 81$) (Connor and Davidson 2003). However, no research explores PCDA participants who are both degree students and police officers, so our present research makes a novel contribution to knowledge.

This paper sets out three hypotheses: (1) trainee police constables, studying a Degree Apprenticeship (PCDA) in England, should report higher CDRISC-25 resilience scores compared to known scores from the general public. (2) Trainees should report variations of resilience, mental wellbeing and trauma exposure based on demographic variables (such as gender and year group). (3) There should be a positive correlation between higher reported resilience and mental wellbeing and a negative correlation with higher reported trauma exposure.

Resilience

Previous research on resilience has suggested it can be part of psychological capital, consisting of four aspects: self-efficacy, hope, optimism, and resilience. However, psychologists differ on the part these factors play in our response to everyday difficulties (Aburn et al. 2016; Luthans and Youssef-Morgan 2017; Pangallo et al. 2015). For example, it is unclear how resilience contributes to psychological capital, a construct that predicts job satisfaction and commitment as well as mental wellbeing (Britt et al. 2016; Farr-Wharton et al. 2021; McCanlies et al. 2017; Violanti et al. 2008). It is not known how resilience interplays with confidence in one's ability to exert control over our own motivation, behaviour and environment. Some psychologists suggest other key factors relating to lower resilience might be our psychiatric history, family history and presence (or absence) of mental disorders (Levy-Gigi et al. 2016).

An explanation of the impact of resilience in the stress-outcome relationship is the Transactional Theory of Stress (Lazarus and Folkman 1984; Lazarus et al. 2001). The traumatic events that frontline workers may be exposed to are appraised dependent on individual differences as a threat, challenge or a loss (primary appraisal). The reaction to the stressor would be dependent upon the secondary appraisal relating to coping resources. Frontline workers with high levels of resilience may primarily appraise a stressor as having a lower impact or respond with different coping

strategies because they have a higher level of resilience. In this way, resilience is thus a mediator within the stress-outcome relationship. There is criticism of the theory with respect to what real priority cognition has over our emotions and the role of our consciousness in the appraisal processes (Ben-Zur 2019).

Police Resilience

Most studies of special occupations and resilience have been focused on firefighters (Lee et al. 2016), yet they can differ from police officers with respect to the intensity, frequency and types of cases that law enforcers handle (Foley et al. 2022). Researchers sometimes consider resilience in police officers as an outcome, such as PTSD symptoms (Bowler et al. 2012), but it is more useful to consider that police officers face compounded trauma from attending incidents, with a cumulative effect found among emergency workers (Harvey et al. 2016). It can have a negative effect on their work stress if resilience is low, which can lead to poor coping mechanisms such as substance addictions (Brewin et al. 2022; Devilly and Varker 2015).

One twin-site study demonstrated a significant correlation of resilience with the General Health Questionnaire of police officers from Pakistan ($N613$) and an English police force, as well as with measures of coping (Naz and Gavin 2013). However, English participants ($N313$) included up to Superintendent rank, so although there may have been an accumulation of trauma, it may not have been recent, and the study did not measure trauma exposure, nor the new PCDA. The study used the shorter CD-RISC-10 resilience scale, and although short scales can reduce survey fatigue and carry validation and reliability, fuller scales have higher reliability and precision, breaking down aspects of responses (Kemper et al. 2019).

In a recent study of South Sumatran officers, good resilience as well as self-efficacy had a positive and significant effect on reducing police officers' work stress. There was a good sample size ($N328$) and the Likert questionnaire reported good validity and reliability (Syakdiah et al. 2023). However, the research did not disclose what question set was used, although a useful starting point for the present research may not be generalizable to the UK experience. This is because South Sumatra is over 97% Muslim and has a multitude of various Malay dialects, and agriculture is the main employment (Nigrum and Subardin 2023). Exposure to crime will be different to the UK, but Syakdiah et al. did not measure incident trauma exposure.

A high degree of resilience may protect officers from trauma, as nearly 13% experience trauma from incidents (Brewin et al. 2022; Lee et al. 2016), and around 10% of officers will develop PTSD (Berger et al. 2012). For example, the 2024 police response to the horrific knife killing of

three girls and attack on ten others in Stockport, England (Wright 2024). Other psychologists have found no consistent evidence that resilience was important for good functioning. For example, a unique systematic review assessed studies on the predictive values of resilience among police officers. Twenty-two studies were identified showing that resilience was assessed mostly in relation to physical and mental health variables, yet no study focused on officers' professional functioning. In both cross-sectional and longitudinal studies, associations with health variables were very weak to moderate, while cross-sectional studies mostly yielded stronger associations than longitudinal associations. Overall, it was found that current studies do not provide strong and consistent evidence that resilience was an important predictor for the functioning of police officers (Janssens et al. 2021).

The impact of resilience could depend on demographic factors, with one study investigating the resilience of 380 Canadian police officers (Angehrn et al. 2023). Participating police officers had worked in policing for 16 years on average. Without using the CD-RISC scale, the researchers found that most (58%) exhibited average resilience; a small portion of participants (7%) exhibited low resilience; 35% exhibited high resilience. Older age was related to a decrease in reported scores of resilience. They found no significant differences regarding gender and reported resilience scores (also supported by Naz and Gavin 2013). Although Angehrn et al. used robust research methods, the study did not explore marital status as a protective factor. Neither did they explore exposure to traumatic events that officers may attend. Moreover, they instead looked at exposure to sexual assaults against officers, which was not explored in the present study.

Good self-care and curating the arts can increase resilience and buffer against trauma, especially with mindfulness programmes aimed at police officers to reduce anxiety and lift resilience (Grupe et al. 2021; Papazoglou et al. 2021; Trombka et al. 2021). However, the number of days of disaster-support work, stress-relief drinking behaviour and being female were found to reduce resilience (Kamiyo et al. 2020). A book on police wellbeing proposed a checklist for police supervisors to tally how many traumatic incidents officers were attending across shifts, but stigma can stifle officers from support-seeking (Miller 2022). The role of stigma in suppressing reaching out for help, affecting resilience, has been well-documented among police officers in consistent research (Marshall et al. 2021; Modula et al. 2024; Traynor et al. 2024; Velazquez and Hernandez 2019).

Police Culture in the UK

Police officers in the UK can perceive they need to hold the “thin blue line” and maintain a sense of “us and them” with the public, citing the dangerousness of the job and the

need to meet their police mission of crime fighting. These thoughts and behaviours have been termed “Canteen Culture” and explored by criminologists such as Reiner (1989) and Loftus (2009), who argue that these entrenched views also allow a place for misogyny and racism and unhealthy coping mechanisms such as not support-seeking and turning to addictions. This in turn creates a culture of blame which restrains innovation and reduces resilience, leading to “compassion fatigue” and psychological distress (Brown et al. 2019; Fleming 2019; Metcalfe 2017; Miller 2022). Yet, higher representation of women (42% of new recruits in 2024) may herald a culture change that challenges “machismo” and presents softer, more compassionate skills (Brown et al. 2021; Fielding 2018; Hesketh and Williams 2017).

Methods and Materials

Participants

Participants ($N=101$) were recruited from across years 1 ($n=25$), 2 ($n=37$) and 3 ($n=39$) of a Police Constable Degree Apprenticeship (PCDA) in England. The authors of the present study were unconnected to the programme at the time of the study. There were 45 female, 55 male, and 1 non-binary person. Most participants were 18–34 years old (87%), white (93%) in committed relationships (57%) and heterosexual (88%). The available population was 147, with a 69% overall response rate. The response rate for year 1 was ($n=25$, 96%), year 2 ($n=37$, 48%) and year 3 ($n=39$, 89%). Power analysis showed the response was within a minimum sample size of $N=84$.

Materials

The SPSS statistical software version 29.0.1.1 was used for data analysis. Measures used within the study were pre-validated, reliable tools with extensive usage in research.

Connor-Davidson CD-RISC-25

The Connor and Davidson (2003) CD-RISC-25 is a widely accepted measure of resilience (Papini et al. 2021) using 5-point Likert scales summed from 0 to 100. The 25 questions ask about support-seeking, coping, perseverance, etc. Higher scores indicate greater resilience (over the last month). It has good reliability and applicability across cultures, with good test-retest reliability, Cronbach $\alpha = 0.87$ (Windle 2011) and high internal consistency ($\alpha = 0.93$) (Catalano et al. 2011), with a fuller scale presenting best validity (Kemper et al. 2019). Our test for this study indicated very good reliability and internal consistency (Cronbach $\alpha = 0.86$). Skewness was $z = -0.66$. The copyright

permission was paid for, but a condition was that the full scale cannot be reproduced completely in this publication.

Trauma History Screen

The (amended) Trauma History Screen (THS-13) (Carlson et al. 2011) is a self-report measure of exposure to (originally) 14 traumatic events like bad accidents or death. Trainees in year 1 were discounted as they have not been operationally deployed yet at the time of the study. The THS has expert ratings of reading ease, and construct validity and psychometric properties are good (Carlson et al. 2011). It was amended to 13 scales to remove military references and rephrased to reflect *attendance* at incidents that exposed the trainee officers to trauma. A test for our study indicated very good reliability and internal consistency (Cronbach $\alpha = 0.89$). The z score was -0.08 .

Clinical Outcomes in Routine Evaluation Scale

The Clinical Outcomes in Routine Evaluation scale (CORE-10) measures general mental wellbeing, including support-seeking behaviour (Barkham et al. 2013). It asks 10 questions around suicidal ideation, happiness, and sleep on a 5-scale Likert. Two items are reverse-coded. Healthy to mild distress is taken as a total score of 0 to 14, moderate to severe as 15 to 24, and severe distress as 25 and above (Barkham et al. 2013). Reliability and validity are good (Lewis 2016), with Cronbach $\alpha = 0.9$ (Barkham et al. 2013). Our test for this study indicated good reliability and internal consistency (Cronbach $\alpha = 0.77$). The z score was -2.42 .

Procedure

The cross-sectional study with data collected at a single time point ran from 10th April 2024 until 26th April 2024. A cohort-wide internal email was sent by the Policing Head of Department, through purposive sampling (Robson 2024). SPSS statistical software was used, and data was cleaned. Very rare missing data was addressed. Tests for skewness z values were acceptable at ± 2.98 (Pallant 2020). Cronbach's alpha was used to determine reliability and internal consistency. Means and descriptive statistics for the scale items were calculated and compared (Davis 2019). Tests revealed normal distribution of data, so parametric tests were used. Continuous data was explored using independent t -tests where there were two categorical variables and ANOVA tests where there are three groups (other than the THS scale). The post-hoc Tukey ANOVA test was used. Cohen's d established effect sizes, with small ≥ 0.1 , medium ≥ 0.3 and large ≥ 0.5 (Cohen 2013). Bivariate correlation tests were made with all assumptions met, to establish relationships between scale items. Linear

regression analysis determined model impact (Coolican 2019).

Ethics

Ethical approval was granted by the Faculty of Education, Health and Wellbeing, University of Wolverhampton on the 28th March 2024, following widely accepted online research ethics guidelines (British Psychological Society 2021). Participants could not be identified. Consent was gained with a right to refuse. Risks and benefits were explained. Participants were not allowed their individual scores. Debriefing was by way of a sanitized summary.

Results

Connor Davidson Resilience Results

Total scores from police trainee participants ($N=101$) showed $M = 66.35$, $SD = 10.48$, *range* = 42 to 90. This is much lower resilience compared to the US average (81) and lower than the UK student average (75) and a UK medical control (healthy) group average (70). Trainees reported that they often had a close person who helped when they were stressed ($M = 3.38$, $SD = 0.48$) and often took pride in their achievements ($M = 3.15$, $SD = .48$). Yet, trainees reported *during* stress or crisis; they only *sometimes* knew *where* to turn to for help ($M = 2.69$, $SD = 0.90$). Fate or god rarely helped them ($M = 0.88$, $SD = 0.48$), and they were only sometimes not easily put off by failure ($M = 2.21$, $SD = 0.48$) (Table 1).

Trauma History Screen Results

Year 1 were excluded as they were yet to be deployed on frontline duties. Total scores from participants ($N=76$) showed exposure to half of the 13 traumatic events and twice the previously known mean trauma exposure of healthy people ($M = 6.24$, $SD = 4.14$, *range* = 0–13). Seventy-four per cent of years 2 and 3 trainees reported attending three or more different traumatic events, and 47% reported being really bothered emotionally. Twenty-one per cent of trainees have been exposed to 10 or more unique traumatic events. The top exposure (75% of participants) was to sudden deaths ($M = 0.76$, $SD = 0.43$). The lowest exposure (24% of participants) was for natural disasters ($M = 0.02$, $SD = 0.43$) (Fig. 1) (Table 2).

Table 1 Descriptive statistics for all CD-RISC-25 scale items

Scale item	Mean	Standard deviation
Adaptable	2.90	.714
Secure relationship	3.38	.835
Fate or God helps	.88	1.107
Deal with whatever	2.70	.729
Triumph for confidence	3.04	.720
See funny side	2.83	.970
Stress brings strength	2.46	.755
Can bounce back	2.88	.791
Reason for things	2.50	1.036
Make effort	3.12	.778
Overcome obstacles	2.92	.717
Persevere	2.70	.819
Turn to for help	2.69	.903
Focus	2.61	.721
Take the lead	2.40	.873
Failure okay	2.21	.983
Strong person	2.81	.731
Unpopular if needed	2.51	.923
Cope with pain	2.63	.967
Act on hunch	2.38	.746
Purpose in life	2.58	1.013
Control of life	2.50	.996
Enjoy challenge	2.69	.758
Barriers okay	2.87	.730
Pride in self	3.15	.841
(N = 101)		

The CDRISC-25 scale licence was purchased and authority to use obtained, but it may not be reproduced in full due to copyright

Clinical Outcomes Routine Evaluation Results

Total scores from participants ($N=99$) showed that overall, they reported healthy to mild distress ($M = 11.28$, $SD = 5.73$, range = 0–26). However, 28 trainees reported moderate to severe distress (28%). Of these, three trainees reported severe distress. Trainees reported they *sometimes* experienced anxiety ($M = 1.91$, $SD = 1.05$) and sleep problems ($M = 1.66$, $SD = 1.32$). Trainees *only occasionally* had someone to turn to ($M = 1.57$, $SD = 1.18$). Most reported no suicidal ideation ($M = 0.16$, $SD = 0.53$) (Table 3).

Age and Gender Results

Independent t -tests and one-way ANOVA tests showed no significant differences between age and gender groups and the scales.

Relationship Status Results

Independent t -tests showed no significant differences between trainees who reported they were in a committed relationship versus those who reported they were single, in both the resilience and trauma exposure scales. Single trainees had the highest distress level scores ($M = 12.39$, $SD = 6.10$) compared to those in a committed relationship, and this was statistically significant ($M = 10.40$, $SD = 5.30$ ($t(97) = -1.73$, $p = .043$, $d = -0.35$).

Year Group Results

One-way ANOVA indicated a strong statistically significant difference in resilience between year groups ($F(2,98) = 4.91$, $p = .009$, effect size .091). A Tukey post-hoc test revealed resilience was higher in year 1 ($M = 70.92$, SD

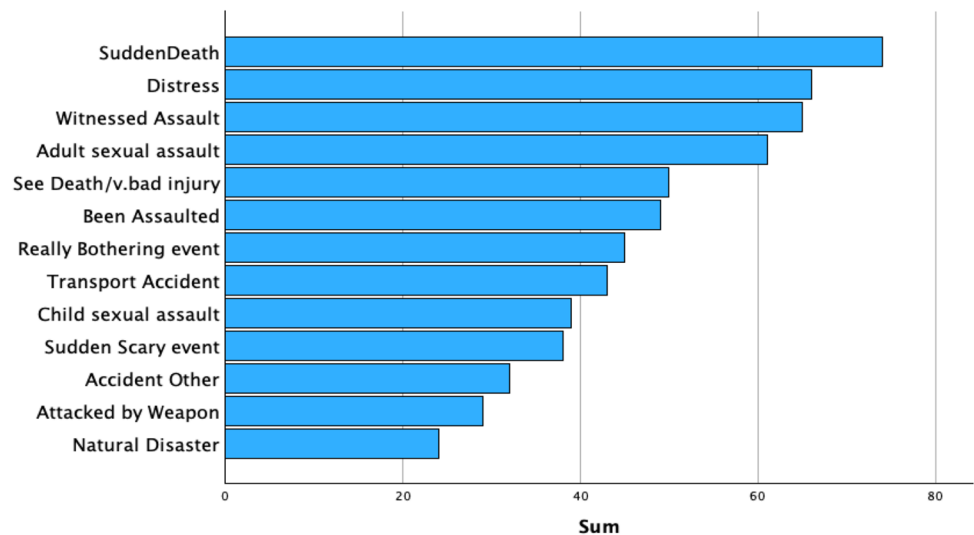
Fig. 1 Most and least attended THS-13 events (sum)

Table 2 Descriptive statistics for all THS-13 (amended) scale items

Scale item	Mean	Standard deviation
Bad transport accident	.44	.498
Other accident	.32	.468
Natural disaster	.24	.428
Witness hitting w/injury	.66	.475
Hit with injury	.50	.502
Attend child sex offence	.39	.490
Attend adult sex offence	.62	.487
Attacked by weapon	.30	.459
Attend sudden death	.76	.431
See death or serious hurt	.52	.502
Other sudden scary event	.39	.490
Attend eviction/domestic	.68	.470
Really bothered feelings	.47	.502

(*N* = 101)

Table 3 Descriptive statistics for all CORE-10 scale items

Scale item	Mean	Standard deviation
Anxiety	1.91	1.055
Turn to for help	1.57	1.179
Cope when problems	1.25	.833
Sharing is too much	1.31	1.116
Panic or terror	.74	.960
Suicidal	.16	.526
Sleep problems	1.66	1.321
Despair or hopeless	.69	.925
Unhappy	1.37	1.111
Unwanted images	.68	.916

(*N* = 99)

Table 4 Descriptive statistics for all three scales

Scale	Overall Mean (SD)	Year 1 Mean (SD)	Year 2 Mean (SD)	Year 3 Mean (SD)
Trauma exposure	8.13 (.42)	n/a	7.65 (2.55)	8.62 (2.70)
Resilience	66.38 (10.48)	70.92 (8.30)	62.78 (10.92)	66.82 (10.29)
Wellbeing	11.28 (5.73)	8.80 (4.52)	12.75 (6.24)	11.53 (5.51)

Year 1 Mean Trauma Exposure was not captured, as these apprentices had not been operationally deployed yet

Table 5 Coefficient table for all scales

Model	Unstandardized B	Coefficients Std. error	Standardized coef- ficients beta	<i>t</i>	Sig.
Constant	25.411	3.475		7.313	<.001
CD-RISC25 totals	.226	.050	-.417	-4.526	<.001
THS totals	.138	.128	.099	1.080	.283

= 8.30) compared to year 2 ($M = 62.78$, $SD = 10.92$), $p = .007$, $d = -0.83$. There were no statistically significant differences between the other year groups.

In terms of exposure to trauma, year 3 reported higher scores ($M = 8.62$, $SD = 2.70$) than their year 2 counterparts ($M = 7.65$, $SD = 2.55$). *T*-test indicated statistical significance with a medium effect size ($t(74) = -1.60$, $p = .057$, $d = 0.36$).

For levels of distress, a one-way ANOVA indicated a statistically significant difference between all year groups ($F(2,96) = 3.76$, $p = .027$, effect size .073). A Tukey post-hoc test revealed that distress was statistically significantly higher in year 2 ($M = 12.75$, $SD = 6.24$, $p = .021$, $d = 0.72$) than in year 1 ($M = 8.80$, $SD = 4.52$). Year 3 also reported higher distress levels than year 1 ($M = 11.53$, $SD = 5.51$) (Table 4).

Correlation and Regression Analysis

A bivariate correlation analysis showed no significant relationship between exposure to trauma and resilience ($r(99) = -.045$, $p = .658$) or distress levels ($r(99) = .118$, $p = .244$). Bivariate correlations indicate a very strong and statistically significant relationship between reported resilience levels and distress scores, where the higher the resilience score, the lower the distress ($r(99) = -.42$, $p = .001$). Linear regression supported this finding with a statistically significant model ($F(2,96) = 11.07$, $p = <.001$, $R^2 = .17$) although only 17% of the variability in distress was explained by variability in resilience. As can be seen in Table 5, the significant contributor to the model was resilience (CD-RISC-25).

Discussion

The hypotheses for this study were as follows: (1) trainee police constables, studying a Degree Apprenticeship (PCDA) in England, should report higher CDRISC-25 resilience scores compared to known scores from the general public. (2) Trainees should report variations of resilience, mental wellbeing and trauma exposure based on demographic variables (such as gender and year group). (3) There should be a positive correlation between higher reported resilience and mental wellbeing and a negative correlation with higher reported trauma exposure.

Resilience and Support-Seeking

The current study found significantly lower levels of resilience in police trainees ($M = 66$) compared to the known reported mean resilience of the US general population ($M = 81$), placing trainees in the lowest quartile of resilience scores (Connor and Davidson 2003). Importantly, trainees had significantly lower levels of resilience when compared to a previous study of English university students ($M = 75$) (Allan et al. 2013). This makes it important for stakeholders in the PCDA to better understand the student journey, to avoid unnecessary welfare issues and attrition. Participants in our study also had a lower mean resilience than a healthy control group within a UK medical study ($M = 70$) (O'Hanlon et al. 2011, as cited by Davidson 2018). However, we also report that our three cohorts were comparable to healthy adults in an English university community ($M = 67$) (Petros et al. 2013, as cited by Connor and Davidson 2003).

The resilience finding from the current study fails to support the hypothesis that police officers in training would demonstrate higher levels of resilience than the public. The findings are also contrary to previous literature (Angehrn et al. 2023). This may indicate that the current candidates on the course could show less adaptability on the frontline and lower reported mean resilience may be due to fatigue. Of course, academics differ in how they see the role of resilience in psychological capital. Some psychologists (Levy-Gigi et al. 2016) suggest other key factors relating to lower resilience might be our psychiatric history, family history, and presence of mental disorders—which we did not test.

Hesketh and Stubbs (2024) argue that rigorous recruitment strategies allow for the selection of trainees who are more able to withstand high stress levels and trauma exposure. However, there is scant research on the impact of new police recruitment processes, leaving concerns for the College of Policing. Police officers deal with

unpleasant conflicts daily, leading to compassion fatigue (Miller 2022) and work stress (Lee et al. 2016; Syakdiah et al. 2023). Officers need to adapt to and cope with challenging situations caused by operational traumatic job stressors (Janssens et al. 2021; McCanlies et al. 2017), which may put them at risk of mental health problems, negatively impacting their performance (Levy-Gigi et al. 2016). Therefore, low resilience scores within the current study are worrying.

Support-seeking is seen as critical for resilience, buffering against trauma (Papazoglou et al. 2021) and may theoretically help in secondary appraisals of coping (Lazarus and Folkman 1984; Lazarus et al. 2001). While trainees reported *often* having a close person who helped when they were stressed, *during* stress, trainees only *sometimes* knew *where* to turn to for help, and too much pride may prevent officers from reaching out. This was determined from both the CD-RISC-25 and CORE-10 answers. This accords with UK police culture of blame and fear of admonishment (Lof-tus 2009; Reiner 1989), with stigma playing a crucial role (Traynor et al. 2024). Universities and forces could build upon the anchors of trainees *often* taking pride in their achievements and the availability of close support, and comfort should be drawn from low suicidal ideation reported.

Demographics

No significant differences between age and the three scales were found, but Naz and Gavin (2013) demonstrated older age was related to decreased resilience. However, in our present study, most participants were young officers, reporting low resilience. No significant differences were found between gender and the three scales, supported by research (Angehrn et al. 2023; Naz and Gavin 2013). However, Kamijo et al. (2020) found that being female *was* associated with reduced resilience. Literature also suggested that policewomen's increasing influence in policing may nudge cultural movement toward less machoism and better compassion and therefore perhaps better help-seeking and less stigma (Brown et al. 2021; Fielding 2018), but this has no specific support in the present study. Our study did support McCanlies et al. (2017) where we found that single trainees reported higher distress levels than trainees in a committed relationship, so single trainees may benefit from increased support by their employer and the university.

A shorter length of service was a significant predictor of better resilience, supported by Prati and Pietrantonio (2010). Trainees in year 2 had significantly higher distress levels than year 1, perhaps because they have been operationally deployed but still have further study to complete. In terms of exposure to trauma, year 3 reported statistically significantly higher scores than their year 2 counterparts, which

we would expect to find as the former have been in active service for longer. This is likely also related to the pressures of the degree course.

The novel findings support the hypothesis that there are significant differences between demographics and resilience, distress levels and exposure to trauma. The Transactional Theory of Stress suggests appraisal of available mental resources regarding traumatic events will be important to police trainees (Lazarus and Folkman 1984; Lazarus et al. 2001).

Trauma Exposure

Trainees reported twice the mean trauma exposure of a control group deemed by researchers as clinically “healthy people” and nearly matched that reported by a group at clinical high risk for psychotic disorders (Russo et al. 2014). However, a noteworthy finding was there was no statistical relationship between reported exposure to trauma, compared to both reported resilience levels and distress levels. We would have expected (in our hypothesis) that trauma exposure would be associated with distress and low resilience in our three cohorts, posing lots of questions about what is causing distress. Regarding Lazarus and Folkman’s (1984) Transactional Theory of Stress, trainees will experience traumatic events in different ways and may be hampered in their resilience appraisal, because alongside policing being unpredictable, officers are nonetheless being exposed to atypical trauma levels. They are young in service and so have less experience as appraisal reference points. Perhaps instead of just focusing on *what* officers have attended, we need a measure of their perceived stress in dealing with the events.

Moreover, UK police culture theory suggests inflexible and stereotypical thinking is used by officers as their appraisal points (Reiner 1989). McCanlies et al. (2017) found resilience correlated negatively with trauma among police officers, and so the fact trainee officers in this current study are reporting high levels of trauma and low levels of resilience, should be concerning to stakeholders. Much of the literature on police resilience was studies in the aftermath of a catastrophe, such as an earthquake (Kamijo et al. 2020), yet the highest mean reported by trainees was for exposure to attending sudden deaths, and so this is the area for employers and educators to focus support.

Distress

A novel, important contribution to understanding distress in police officers was found. Police trainees mostly had healthy to mild distress mean scores, and suicidal ideation was low. However, nearly a third of the sample reported moderate to severe distress, and three trainees reported severe distress.

Although there was no statistically significant correlation between reported exposure to trauma, compared to both reported resilience levels and distress levels, it is nevertheless worrying that a third of trainees reported unhealthy wellbeing levels and were being sent operationally to traumatic events.

The higher the resilience score, the lower the distress, lending support to the paper’s hypothesis that resilience buffers the impact of stress. Problematically, trainees reported *only occasionally* having someone to turn to for help. The literature identified resilience correlated positively with seeking social support. For example, McCanlies et al. (2017) found resilience correlated positively with satisfaction with life and gratitude among police officers, and so support-seeking could be relevant here. Sleep problems ($M = 1.66$) were one of the weak areas of wellbeing for trainees, who work a shift system of days, late and nights. To address this, the university and police force could target sleep education to buffer against trauma (Papazoglou et al. 2021).

Strengths and Limitations

The strengths of the present, novel study are that it revealed new insights into police resilience, exposure to trauma and distress levels among a hard-to-reach population. It is the first to use the full CD-RISC-25 scale with English trainee officers and unique in studying PCDA students’ exposure to operational trauma and distress levels with valid scales. Several statistically significant results were revealed, with an excellent response rate. Limitations include psychometric scales’ reliance on western populations and whether measures really assess their target (Lyons 2019). Self-reporting can affect usefulness because respondents can exaggerate, even with reverse-coded scales (Dang et al. 2020). This was a cross-sectional study with data collected at a single time point—it would be interesting to follow up trainees over the 3 years of increasing deployment to see if resilience levels change over time, i.e. using a within/between subject longitudinal design. Further, the research only measured trauma exposure rather than *how* it was experienced, and the THS was slightly amended, meaning direct comparisons with other THS studies need close examination. Lastly, only three training cohorts at one university were used, and so local issues may have affected results, such as the make-up of rural vs. urban or the emphasis the force placed on culture and values.

Conclusion

Findings suggested police trainees report much lower mean resilience compared to the public and other groups, and only *occasionally* knew *where* to turn for support, affecting

support-seeking and linking to police culture (Loftus 2009; Reiner 1989). Relationship status was important, but there were no significant differences between gender and age against all scale results. The higher the reported resilience, the lower the distress. There was no significant relationship between exposure to trauma compared to both resilience levels and distress levels. Many trainees reported high trauma exposure, and nearly a third of the sample reported moderate to severe distress scores. Lazarus and Folkman's (1984) Transactional Theory of Stress posits traumatic events that frontline workers may be exposed to are appraised dependent on individual factors (primary appraisal) but then a reaction to a stressor depends on coping resources (secondary appraisal). Therefore, our study may show that secondary appraisal can be targeted by the employer and university. For example, a buddy scheme for trainees or mindfulness programmes could help reduce the stigma of support-seeking and increase police officers' resilience (Grupe et al. 2021; Trombka et al. 2021). Specifically, mental health outcomes in police officers could be better understood by addressing barriers such as cynicism, with credible mindfulness practice champions (Sylvén 2024).

Important implications warrant targeted support by the university and police force to improve resilience and reduce distress, with closer monitoring of traumatic events. For example, by better tracking of how officers are reacting to the traumatic events they are going to, and increased, regular resilience training by an outside provider. During recruitment, less resilient candidates could be identified during the psychometric tests and competency exercises, as well as interview (Hesketh and Stubbs 2024) to provide them with additional support during training. Further research involving a range of outcome measures, more forces and universities, a larger sample and random element is recommended. Perhaps support-seeking could have greater focus.

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Author Contributions M.H. wrote the main manuscript text, from dissertation research supervised (MSc-level) by R.C., whom also reviewed and edited the whole manuscript. All authors reviewed the manuscript.

Data Availability SPSS Data is held by M.H. on a fingerprint-security protected laptop

Declarations

Ethics Approval Ethical approval for the questionnaire and methodology for this study was granted by the Faculty of Education, Health and Wellbeing, University of Wolverhampton on the 28th March 2024, following online research guidelines (British Psychological Society 2021). Participants could not be identified. Consent was gained, with a right to refuse. Risks and benefits were explained. Participants were

not allowed their individual test scores. Debriefing was by way of a sanitized summary.

Consent to Participate Informed consent was obtained from all individual participants included in the study, with a right to refuse, including consent to publish (sanitized) data in a journal.

Competing interests The authors declare no competing interests.

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