

Resilience and Occupational Functioning of Police in Frontline Kherson

Резильєнтність і професійне функціонування поліцейських прифронтового Херсона

Received: August 24, 2026

Accepted for publication: October 26, 2026

Published online: October 30, 2026

Svitlana Karskanova

Candidate of Psychological Sciences, Associate
Professor,

Department of Psychology,
Admiral Makarov National University of
Shipbuilding, Mykolaiv, Ukraine

<https://orcid.org/0000-0002-0930-2254>

Iryna Larchenko*

Doctor of Philosophy in Psychology (PhD),
Department of Psychology,

Admiral Makarov National University of
Shipbuilding, Mykolaiv, Ukraine

<https://orcid.org/0000-0002-3625-8893>

Dmytro Hryshyn

Master's Student in Psychology,
Department of Psychology,

Admiral Makarov National University of
Shipbuilding, Mykolaiv, Ukraine

<https://orcid.org/0009-0005-0477-1931>

Світлана Карсканова

кандидат психологічних наук, доцент,
кафедра психології,

Національний університет кораблебудування
імені адмірала Макарова,
Миколаїв, Україна

<https://orcid.org/0000-0002-0930-2254>

Ірина Ларченко*

доктор філософії з психології (PhD),
кафедра психології,

Національний університет кораблебудування
імені адмірала Макарова,
Миколаїв, Україна

<https://orcid.org/0000-0002-3625-8893>

Дмитро Гришин

магістрант з психології,
кафедра психології,

Національний університет кораблебудування
імені адмірала Макарова,
Миколаїв, Україна

<https://orcid.org/0009-0005-0477-1931>

Abstract

Purpose. This study examined the associations of resilience with perceived stress, occupational burnout, and individual work performance among police officers serving in frontline Kherson.

Methods. The empirical study was conducted in 2026 and included 51 serving officers of the National Police of Ukraine aged 26–45 years (48 men and 3 women). Overall, 94.1% had at least eight years of service; 94.1% rated their workload as elevated, high, or very high, and 88.3% reported frequent, very frequent, or constant exposure to danger or uncertainty. The Brief

Анотація

Мета – емпірично встановити характер взаємозв'язків резильєнтності зі сприйнятим стресом, професійним вигоранням та індивідуальною робочою ефективністю поліцейських, які безпосередньо здійснюють службову діяльність у прифронтовому Херсоні. **Методи.** Емпіричне дослідження проведено у 2026 році. Вибірку склали 51 чинний працівник Національної поліції України віком 26–45 років, серед яких було 48 чоловіків і 3 жінки. 94.1% учасників мали стаж служби щонайменше вісім років; 94.1% оцінювали службове навантаження як підвищене, високе або дуже високе, а 88.3% повідомили про часте, дуже

* Corresponding Author: iryna.larchenko@nuos.edu.ua

* Автор-кореспондент: iryna.larchenko@nuos.edu.ua

Resilience Scale (Smith et al., 2008), Perceived Stress Scale-10 (Cohen et al., 1983), Copenhagen Burnout Inventory (Kristensen et al., 2005), Individual Work Performance Questionnaire (Koopmans et al., 2014), and a socio-professional questionnaire were administered. Descriptive statistics, Cronbach's alpha, and Spearman's rank correlations were used. **Results.** Mean resilience was $M = 4.02$, $SD = .61$; perceived stress, $M = 10.82$, $SD = 6.06$; overall burnout, $M = 28.31$, $SD = 16.82$; and overall work performance, $M = 2.89$, $SD = .76$. Low perceived stress was observed in 58.8% of participants and moderate stress in 41.2%; 88.2% showed low or non-pronounced overall burnout. Internal consistency ranged from acceptable to excellent ($\alpha = .800-.954$). Resilience was negatively associated with perceived stress ($r_s = -.560$; $p < .001$), burnout related to interactions with people ($r_s = -.448$; $p < .001$), and overall burnout ($r_s = -.310$; $p = .027$), and positively associated with task performance ($r_s = .482$; $p < .001$), contextual performance ($r_s = .423$; $p = .002$), and overall work performance ($r_s = .465$; $p < .001$). **Conclusions.** Among police officers serving in frontline Kherson, a greater capacity to recover from stress was associated with lower subjective stress, less pronounced manifestations of burnout, and more favorable behavioral indicators of occupational functioning. The correlational design precludes causal inference.

Keywords: perceived stress; psychological recovery; emotional exhaustion; task performance; contextual performance; occupational adaptation.

Introduction

Police work is characterized by substantial psychological and emotional demands, in which operational risks coexist with responsibility for the safety of others, rapid decision-making, the regulation of one's own emotional responses, and intensive interpersonal interactions. Under conditions of full-scale war, this demand structure has become considerably more complex: conventional operational and organizational

часте або постійне перебування у ситуаціях небезпеки чи невизначеності. Застосовано Brief Resilience Scale (Smith et al., 2008), Perceived Stress Scale-10 (Cohen et al., 1983), Copenhagen Burnout Inventory (Kristensen et al., 2005), Individual Work Performance Questionnaire (Koopmans et al., 2014) та соціально-професійну анкету. Використано описову статистику, коефіцієнт α Кронбаха та кореляційний аналіз Спірмена. **Результати.** Середній показник резиліентності становив $M = 4.02$, $SD = .61$; сприйнятого стресу – $M = 10.82$, $SD = 6.06$; інтегрального вигорання – $M = 28.31$, $SD = 16.82$; інтегральної робочої ефективності – $M = 2.89$, $SD = .76$. У 58.8% учасників зафіксовано низький, у 41.2% – помірний рівень сприйнятого стресу; 88.2% мали низький або невиражений інтегральний рівень вигорання. Внутрішня узгодженість використаних шкал була прийнятною або високою ($\alpha = .800-.954$). Резильєнтність мала негативний зв'язок зі сприйнятим стресом ($r_s = -.560$; $p < .001$), вигоранням у взаємодії з людьми ($r_s = -.448$; $p < .001$) та інтегральним вигоранням ($r_s = -.310$; $p = .027$), а також позитивні зв'язки з виконанням завдань ($r_s = .482$; $p < .001$), контекстною ефективністю ($r_s = .423$; $p = .002$) та інтегральною робочою ефективністю ($r_s = .465$; $p < .001$). **Висновки.** У поліцейських прифронтового Херсона вища здатність до психологічного відновлення пов'язана з нижчим суб'єктивним стресом, меншою вираженістю окремих проявів вигорання та більш сприятливими поведінковими характеристиками професійної діяльності. Кореляційний дизайн не дає підстав для причинно-наслідкової інтерпретації встановлених зв'язків.

Ключові слова: сприйнятий стрес; психологічне відновлення; емоційне виснаження; виконання завдань; контекстна поведінка; професійна адаптація.

stressors are compounded by persistent threats to life and health, exposure to the consequences of hostilities, uncertainty regarding the security environment, and the need to sustain occupational functioning in a setting where the primary stressor has no clearly defined endpoint. Recent Ukrainian research has highlighted the increasing importance of self-regulation, proactive coping, psychological resilience, and organizational resources in police work during

wartime (Honcharova, 2024; Ponomarenko, 2024; Voloshyn, 2026). Organizational transformations and security challenges faced by the National Police during the war have also been documented in interdisciplinary research (Vyhivskiy & Trembetskiy, 2024; Sokurenko & Jarczewski, 2024).

These demands are particularly concentrated among police officers serving in frontline areas. In this occupational context, the critical issue is not merely the presence or absence of psychological distress, but the capacity to remain functionally effective under recurrent and prolonged threat. Studying officers who continue to serve directly in Kherson, therefore, raises a broader question: which psychological characteristics are associated with preserved occupational functioning when the principal external stressor cannot objectively be removed?

International systematic reviews have shown that operational and organizational stressors in policing are associated with psychological distress, post-traumatic symptoms, anxiety, depressive symptoms, and exhaustion (Sherwood et al., 2019; Syed et al., 2020). Research on police occupational stress further indicates that psychological burden is shaped not only by discrete critical incidents but also by the cumulative effects of routine job demands, interpersonal strain, and organizational constraints. In wartime, these streams of stress may operate concurrently.

Contemporary Ukrainian studies likewise indicate that police work under martial law requires substantial resources for adaptation, self-regulation, and recovery. Proactive coping, self-regulatory capacity, and personal resources have been identified as relevant to police behavior under demanding conditions (Honcharova, 2024; Vorobiova & Okhrimenko, 2025). A separate line of research has addressed occupational burnout among law-enforcement personnel during the war, demonstrating heterogeneity in exhaustion as a function of occupational role, length of service, and other contextual characteristics (Ponomarenko et al., 2025; Botnarenko & Dziurbel, 2025; Bolshakova et al., 2025). Researchers have also emphasized risks of professional deformation and the need to sustain the psychological resources of police personnel (Shvets & Kisil, 2023; Ponomarenko et

al., 2026).

Resilience is one such resource. Contemporary psychology increasingly avoids construing resilience as a static trait that confers “invulnerability” to adversity. Instead, it is understood in terms of adaptive and recovery processes that enable individuals to maintain or regain functioning following significant stressors (Southwick et al., 2014; Ungar, 2018). In the present study, resilience was operationalized in accordance with the Brief Resilience Scale as the capacity to recover from stressful and difficult events (Smith et al., 2008). This conceptualization is particularly relevant to police work in a frontline city: the practically meaningful question is not whether stress responses can be eliminated, but whether officers can restore emotional and behavioral regulation after repeated exposure and continue to perform their occupational roles.

Research on resilience among law-enforcement personnel has revealed considerable variability in conceptualization and measurement and has also demonstrated the construct’s potential to explain individual differences in responses to occupational stressors (Janssens et al., 2021). Higher resilience among police officers has been associated with more favorable individuals’ functioning and protective resources (Angehrn et al., 2023). A recent systematic review of resilience-training programs for police found that interventions most commonly incorporated stress management, emotion regulation, mindfulness, and cognitive-behavioral strategies, with most included studies reporting improvements in selected psychological or occupational outcomes (Moreno et al., 2024). Police trauma, loss, and resilience also remain prominent themes in current international scholarship (Schlosser et al., 2024).

Ukrainian wartime research similarly conceptualizes resilience as a resource for adaptation under uncertainty and prolonged threat (Chykhantsova, 2023, 2025; Medianova et al., 2023). Studies of young people and volunteers have documented context-sensitive manifestations of psychological resilience under wartime conditions (Kostruba & Liashko, 2023; Shcherbak, 2024). For police populations, however, a particularly important question is whether recovery capacity is associated not only

with how officers feel, but also with how effectively they function in their occupational role.

In the present study, occupational functioning was treated as a multidimensional empirical construct encompassing three related but non-equivalent domains: the subjective experience of stress, accumulated psychological and emotional exhaustion, and the behavioral dimension of individual work performance. This operationalization avoids reducing occupational functioning to either psychological well-being alone or productivity alone.

Perceived stress reflects the individual's appraisal of current circumstances as unpredictable, uncontrollable, and overwhelming (Cohen et al., 1983). Occupational burnout, by contrast, reflects cumulative physical and psychological exhaustion. The Copenhagen Burnout Inventory differentiates personal burnout, work-related burnout, and exhaustion associated with interpersonal occupational interactions (Kristensen et al., 2005). The Job Demands–Resources framework provides a useful account of how occupational demands and resources may interact: excessive demands increase the likelihood of exhaustion, whereas personal and organizational resources may support adaptation and work functioning (Bakker & Demerouti, 2017).

At the same time, an employee's psychological state cannot fully represent occupational performance. The Individual Work Performance Questionnaire distinguishes task performance, contextual performance, and counterproductive work behavior (Koopmans et al., 2013, 2014, 2016). This framework makes it possible to assess not only the execution of core job duties, but also behavioral patterns that support or impede broader organizational functioning.

Accordingly, the scientific problem is not simply whether policing during war is stressful, but why psychological and occupational functioning varies among officers who remain exposed to sustained high risk. The simultaneous relationship of recovery capacity with perceived stress, distinct dimensions of burnout, and behavioral indicators of individual work performance remains insufficiently examined among police officers who continue to serve directly in a Ukrainian frontline

city. Addressing this gap constituted the principal novelty of the study.

Hypothesis. Higher resilience among police officers serving in frontline Kherson was expected to be significantly associated with a more favorable profile of occupational functioning: lower perceived stress and less pronounced occupational burnout, as well as higher individual work performance. The overarching hypothesis was specified in three assumptions: (1) higher resilience would be associated with lower perceived stress; (2) higher resilience would be associated with lower occupational burnout; and (3) higher resilience would be associated with better task performance, higher contextual performance, and higher overall individual work performance.

Purpose. To determine empirically the direction and strength of the correlations of resilience with perceived stress, occupational burnout, and individual work performance among police officers who were directly serving in frontline Kherson in 2026.

Methods

Participants. The empirical study was conducted in 2026. The sample comprised 51 serving officers of the National Police of Ukraine who, at the time of data collection, were directly performing their duties in Kherson. The principal inclusion criterion was active performance of professional duties in a frontline city under martial law.

The sample included 48 men (94.1%) and 3 women (5.9%), aged 26–45 years. The largest age group was 36–40 years ($n=30$; 58.8%); 12 participants (23.5%) were aged 31–35 years, 6 (11.8%) were aged 41–45 years, and 3 (5.9%) were aged 26–30 years.

The sample was characterized by substantial professional experience. Twenty-seven officers (52.9%) had more than 12 years of service, 21 (41.2%) had 8–12 years, and 3 (5.9%) had 4–7 years. Thus, 94.1% of participants had at least eight years of police service.

Mixed professional duties predominated ($n=39$; 76.5%). Six participants (11.8%) performed administrative and organizational duties, 3 (5.9%) served in special police units, and

a further 3 (5.9%) performed functions involving public communication and informational support for police activities.

Workload was rated as elevated by 27 participants (52.9%), high by 15 (29.4%), very high by 6 (11.8%), and moderate by 3 (5.9%); consequently, 94.1% reported at least an elevated workload. Frequent exposure to situations of heightened danger or uncertainty was reported by 24 officers (47.1%), very frequent exposure by 6 (11.8%), and constant exposure by 15 (29.4%); only 6 participants (11.8%) selected “rarely” or “sometimes.” Overall, 88.3% of the sample

reported frequent, very frequent, or constant exposure to danger or uncertainty.

During the preceding year, 27 participants (52.9%) had completed training in psychological resilience, stress tolerance, or self-regulation; 18 (35.3%) had not received such training, and 6 (11.8%) selected “difficult to say.”

Participation was voluntary and anonymous. Data were analyzed exclusively in aggregate form, and no information that could identify individual police officers was included in the research dataset. The sample’s socio-professional characteristics are summarized in Table 1.

Table 1. Socio-professional characteristics of the police officers

Characteristic	Category	n	%
Sex	Male	48	94.1
	Female	3	5.9
Age	26–30 years	3	5.9
	31–35 years	12	23.5
	36–40 years	30	58.8
	41–45 years	6	11.8
Length of service	4–7 years	3	5.9
	8–12 years	21	41.2
	>12 years	27	52.9
Workload	Moderate	3	5.9
	Elevated	27	52.9
	High	15	29.4
	Very high	6	11.8
Danger/uncertainty	Rarely/sometimes	6	11.8
	Frequently	24	47.1
	Very frequently/constantly	21	41.2
Training in preceding year	Yes	27	52.9
	No	18	35.3
	Difficult to say	6	11.8

Variables. The focal study variable was resilience, operationalized as the capacity to recover following stressful and adverse events. Its quantitative indicator was the total Brief Resilience Scale score.

Occupational functioning was operationalized across three domains. The first was perceived stress, defined as the subjective appraisal of current circumstances as unpredictable, uncontrollable, and overwhelming. The second was occupational burnout, represented by personal burnout,

work-related burnout, burnout associated with interactions with people, and an overall burnout index. The third was individual work performance, represented by task performance, contextual performance, counterproductive work behavior, and an overall work-performance index.

Sex, age, length of service, type of duty, workload, frequency of exposure to dangerous or uncertain situations, and participation in psychological training were used to characterize the sample and were not modeled as independent

predictors in the primary hypothesis tests.

Procedures and instruments. The assessment battery comprised four psychodiagnostic instruments and a socio-professional questionnaire. Instrument selection followed the study logic: the BRS indexed recovery capacity; the PSS-10 assessed current subjective stress; the CBI assessed accumulated exhaustion; and the IWPQ captured the behavioral dimension of occupational functioning.

Resilience was assessed using the Brief Resilience Scale (BRS) developed by B. W. Smith and colleagues (Smith et al., 2008). The BRS contains six items rated on a five-point response scale. Items 2, 4, and 6 are reverse-scored. The total score was calculated as the mean of the six items after reverse coding; higher scores indicated greater capacity to recover from stress. Internal consistency in the present sample was $\alpha = .800$.

Perceived stress was assessed using the 10-item Perceived Stress Scale (PSS-10) developed by S. Cohen, T. Kamarck, and R. Mermelstein (Cohen et al., 1983). Responses range from 0 ("never") to 4 ("very often"), and the scale captures the extent to which circumstances during the previous month were experienced as unpredictable, overwhelming, and insufficiently controllable. Items 4, 5, 7, and 8 are reverse-scored. Total scores range from 0 to 40, with higher scores indicating greater perceived stress. Internal consistency in this sample was $\alpha = .817$.

Burnout was assessed with the Copenhagen Burnout Inventory (CBI) developed by T. S. Kristensen and colleagues (Kristensen et al., 2005). The 19-item version used in this study yielded indices of personal burnout, work-related burnout, and burnout associated with professional interactions with other people. Responses were converted to a 0–100 scale, with higher values indicating greater exhaustion. To improve contextual relevance for policing, the original client-related burnout subscale was semantically adapted as "burnout related to interactions with people encountered during police duties." Internal consistency was $\alpha = .936$ for personal burnout, $\alpha = .846$ for work-related burnout, and $\alpha = .893$ for burnout related to interactions with people.

Individual work performance was assessed using the Individual Work Performance

Questionnaire (IWPQ), conceptually developed by L. Koopmans and colleagues (Koopmans et al., 2013, 2014, 2016). The 18 items were grouped into task performance, contextual performance, and counterproductive work behavior. Higher scores on the first two scales indicated better performance, whereas higher scores on the counterproductive-work-behavior scale indicated more frequent undesirable workplace behaviors. Internal consistency was $\alpha = .954$ for task performance, $\alpha = .940$ for contextual performance, and $\alpha = .908$ for counterproductive work behavior.

The socio-professional questionnaire covered sex, age, length of service, type of professional duties, workload, frequency of exposure to danger or uncertainty, and participation in training focused on psychological resilience, stress tolerance, or self-regulation during the preceding year. The questionnaire was used solely to characterize the sample.

Organization of research. A cross-sectional correlational design was used. This strategy was consistent with the study purpose because it enabled examination of naturally occurring variation in resilience and its statistical associations with indicators of occupational functioning without experimental manipulation of service conditions.

Data were collected in 2026 from police officers who were directly serving in Kherson at the time of participation. The protocol involved sequential completion of the socio-professional questionnaire, BRS, PSS-10, CBI, and IWPQ. Particular care was taken to minimize the risk of participant identification, given the professional group and wartime context. The survey was anonymous, and results were used only in aggregate form. No experimental induction of stress or other deliberate psychological manipulation was employed.

The analytical procedure comprised three stages: description of the socio-professional context and principal psychological indicators; assessment of the internal consistency of the scales; and hypothesis testing through correlations of resilience with perceived stress, burnout dimensions, and individual work-performance indicators.

Statistical analysis. The dataset was prepared

and statistically processed in Microsoft Excel. Absolute frequencies (n) and percentages (%) were used to characterize the sample. Quantitative variables were summarized using the mean (M), standard deviation (SD), median (Me), minimum (min), and maximum (max).

Scale reliability was assessed using Cronbach's alpha. Values of $\alpha \geq .70$ were considered acceptable for research purposes (Tavakol & Dennick, 2011). The primary hypothesis was tested using Spearman's rank correlation coefficient (r_s). A non-parametric coefficient was selected because of the sample size, the ordinal nature of the underlying item responses, and the absence of a requirement to assume normality for all study variables.

Statistical significance was evaluated at $p < .05$, $p < .01$, and $p < .001$. Correlation coefficients were interpreted jointly in terms of direction, magnitude, and statistical significance; findings with $p > .05$ were treated as not statistically supported. Given the cross-sectional correlational design, observed associations were not interpreted causally.

Results

Empirical analyses followed the logic of the study hypothesis. Psychometric reliability and the overall profile of psychological and occupational indicators were examined first, followed by tests of the associations of resilience with perceived stress, burnout dimensions, and individual work performance.

Internal consistency was acceptable to excellent across the instruments: BRS, $\alpha = .800$; PSS-10, $\alpha = .817$; CBI subscales, $\alpha = .846-.936$; and IWPQ components, $\alpha = .908-.954$. Thus, all principal scales demonstrated adequate internal consistency for subsequent analyses. Descriptive statistics and reliability coefficients are presented in Table 2.

Mean BRS resilience was $M = 4.02$, $SD = .61$, $Me = 4.00$, with observed scores ranging from 3.00 to 5.00. Based on the interpretive thresholds used in the study, 33 participants (64.7%) had a moderate/normal level of resilience, and 18 (35.3%) had a high level; no low scores were observed.

Perceived stress on the PSS-10 was $M = 10.82$, $SD = 6.06$, $Me = 10.00$, with scores ranging from 2

to 20. Thirty participants (58.8%) were classified as having low perceived stress, and 21 (41.2%) as having moderate stress; no high scores were observed. This pattern is especially noteworthy in the occupational context: 94.1% of officers reported at least an elevated workload and 88.3% reported frequent or more persistent exposure to danger or uncertainty. Thus, the relatively low group-level PSS-10 scores did not occur in the absence of occupational stressors.

CBI scores were heterogeneous across dimensions. Personal burnout was $M = 26.96$, $SD = 21.07$; work-related burnout, $M = 32.98$, $SD = 18.91$; and burnout related to interactions with people, $M = 25.00$, $SD = 18.82$. The overall burnout index was $M = 28.31$, $SD = 16.82$, $Me = 27.78$. On the overall index, 45 participants (88.2%) had low or non-pronounced burnout, and 6 (11.8%) had moderate burnout. Nevertheless, maximum scores reached 75.00 for personal burnout, 67.86 for work-related burnout, 62.50 for people-related burnout, and 65.67 for overall burnout. Thus, despite the more favorable group-level pattern, some officers displayed markedly elevated exhaustion.

For the IWPQ, the highest mean was observed for task performance ($M = 3.11$, $SD = 1.02$) on a scale with a maximum of 4. Contextual performance was $M = 2.51$, $SD = 1.12$; counterproductive work behavior, $M = .94$, $SD = .77$; and overall work performance, $M = 2.89$, $SD = .76$. At the descriptive level, the sample combined relatively strong recovery capacity and task performance with comparatively low group-level stress, burnout, and counterproductive work behavior

Table 2. Descriptive statistics and internal consistency of the main study variables

Variable	M	SD	Me	min	max	α
Resilience (BRS)	4.02	.61	4.00	3.00	5.00	.800
Perceived stress (PSS-10)	10.82	6.06	10.00	2.00	20.00	.817
CBI: personal burnout	26.96	21.07	29.17	0	75.00	.936
CBI: work-related burnout	32.98	18.91	32.14	7.14	67.86	.846
CBI: burnout related to interactions with people	25.00	18.82	25.00	0	62.50	.893
CBI: overall burnout	28.31	16.82	27.78	9.13	65.67	–
IWPQ: task performance	3.11	1.02	3.60	1.00	4.00	.954
IWPQ: contextual performance	2.51	1.12	2.25	.75	4.00	.940
IWPQ: counterproductive work behavior	.94	.77	1.00	0	2.00	.908
IWPQ: overall work performance	2.89	.76	2.67	1.67	4.00	–

Note: n = 51; M = mean; SD = standard deviation; Me = median; min = minimum; max = maximum; α = Cronbach's alpha.

Spearman correlation analysis was used to test the hypotheses directly. The first specific assumption was supported: BRS resilience was significantly and negatively associated with PSS-10 perceived stress ($r_s = -.560$; $p < .001$). This was the strongest association observed between resilience and any indicator of occupational functioning.

The second specific assumption received partial support. Resilience was not significantly associated with personal burnout ($r_s = .063$; $p = .661$) or work-related burnout ($r_s = -.234$; $p = .098$). In contrast, significant negative correlations were found with burnout related to interactions with people ($r_s = -.448$; $p < .001$) and with overall burnout ($r_s = -.310$; $p = .027$).

The third assumption was largely supported. Resilience was positively associated with task performance ($r_s = .482$; $p < .001$), contextual performance ($r_s = .423$; $p = .002$), and overall work performance ($r_s = .465$; $p < .001$). Counterproductive work behavior showed a negative coefficient ($r_s = -.269$), but the association did not reach the predefined threshold for statistical significance ($p = .056$).

The principal correlations are summarized in Table 3. Taken together, the results revealed a differentiated empirical profile. Resilience was most consistently associated with lower subjective

stress and with the preservation of positive behavioral indicators of work performance. At the same time, the absence of significant associations with personal burnout, work-related burnout, and counterproductive work behavior indicates that resilience is not a universal marker of all dimensions of occupational functioning.

Overall, the findings supported the primary hypothesis, with qualifications regarding specific burnout dimensions and counterproductive work behavior.

Table 3. Associations of resilience with indicators of occupational functioning among police officers

Variables	r_s	p	Statistical result
BRS ↔ PSS-10	-.560	< .001	significant negative
BRS ↔ personal burnout	.063	.661	not significant
BRS ↔ work-related burnout	-.234	.098	not significant
BRS ↔ burnout related to interactions with people	-.448	< .001	significant negative
BRS ↔ overall burnout	-.310	.027	significant negative
BRS ↔ task performance	.482	< .001	significant positive
BRS ↔ contextual performance	.423	.002	significant positive
BRS ↔ counterproductive work behavior	-.269	.056	not significant
BRS ↔ overall work performance	.465	< .001	significant positive

Note: n = 51; r_s = Spearman's rank correlation coefficient.

Discussion

The most pronounced finding was the negative association between resilience and perceived stress ($r_s = -.560$; $p < .001$). Officers with a greater capacity to recover from difficult events appraised their current life and work circumstances as less overwhelming, unpredictable, and uncontrollable. This pattern is consistent with the conceptual basis of the BRS, in which resilience reflects the capacity to regain functioning following stress rather than the absence of stressful experience (Smith et al., 2008).

This distinction is particularly important in the present sample. A total of 94.1% of participants described their workload as elevated, high, or very high, while 88.3% reported frequent, very frequent, or constant exposure to danger or uncertainty. Accordingly, the relatively low PSS-10 scores should not be interpreted as evidence of an absence of stressors; rather, they reflect participants' subjective appraisal of the psychological burden associated with those stressors. In a frontline environment, resilience does not remove objective danger, but may be associated with the capacity to restore regulation and maintain functional performance.

This interpretation is consistent with systemic accounts of resilience as a dynamic process emerging from interactions among individual, social, and occupational resources (Southwick et al., 2014; Ungar, 2018). Police research similarly links resilience to a broader configuration of

protective factors and personality functioning (Angehrn et al., 2023). BRS scores should therefore not be interpreted independently of professional experience, organizational conditions, and access to psychological preparation.

One plausible explanation for the comparatively favorable group profile is the substantial professional experience of the sample: 94.1% had served for at least eight years, and more than half for over 12 years. Extended professional socialization may be associated with more effective risk appraisal and self-regulation. Contemporary Ukrainian research also emphasizes the relevance of self-regulation and length of service in police work (Vorobiova & Okhrimenko, 2025). At the same time, a selection effect cannot be ruled out: officers who remain in highly stressful environments over prolonged periods may differ systematically from those who leave service or change roles. The cross-sectional design does not permit this possibility to be tested.

More than half of participants (52.9%) reported receiving training in psychological resilience, stress tolerance, or self-regulation during the preceding year. The present design does not permit the conclusion that such training led to higher resilience or lower stress. Nevertheless, this is an important contextual characteristic. The systematic review by Moreno et al. (2024) showed that police resilience programs vary considerably in theoretical orientation and format. However, most included studies reported favorable changes

in at least some psychological or occupational outcomes.

An alternative explanation for the comparatively low subjective-stress scores should also be considered. Prolonged exposure to wartime danger may shift the individual reference point for evaluating stressful situations: events that would be appraised as extremely stressful in another occupational context may gradually become incorporated into the perceived norm of the service environment. A low PSS-10 score should therefore not be equated automatically with an absence of psychophysiological costs. Future research would benefit from complementing self-report measures with external or psychophysiological indicators.

The burnout findings were more differentiated. Resilience correlated negatively with overall CBI burnout ($r_s = -.310$; $p = .027$) and, more strongly, with burnout related to interactions with people ($r_s = -.448$; $p < .001$), whereas associations with personal and work-related burnout were not significant. This pattern is inconsistent with a simplistic assumption that resilience is equally related to all manifestations of exhaustion.

The stronger association with burnout arising from interactions with people may reflect the importance of recovery following emotionally demanding professional encounters. Police work involves contact with victims, members of the public in crisis, colleagues, and other participants in potentially conflictual or traumatic situations; in a frontline environment, the intensity of such encounters may increase further. This interpretation is consistent with Ponomarenko et al. (2025), who conceptualized wartime police burnout as a multifactorial phenomenon contingent on the nature of professional duties. Recent Ukrainian studies likewise indicate associations between burnout, processual resilience, and the resources available to police personnel (Bolshakova et al., 2025; Ponomarenko et al., 2026).

Notably, work-related burnout had the highest mean among the CBI dimensions ($M = 32.98$), yet its association with BRS resilience was not statistically significant. This suggests that exhaustion arising directly from work organization, duty schedules, and sustained workload cannot be adequately explained by an individual's recovery capacity

alone. Such an interpretation accords with Job Demands–Resources Theory, according to which personal resources are consequential but do not eliminate the effects of excessive job demands (Bakker & Demerouti, 2017).

From a practical perspective, resilience development should therefore not become a means of shifting responsibility for occupational well-being exclusively onto individual officers. Under sustained high workload, personal resources need to be complemented by organizational resources, including adequate work–recovery arrangements, accessible psychological support, supportive leadership, and effective team functioning. This position is consistent with recent research on police occupational functioning under martial law (Voloshyn, 2026; Ponomarenko et al., 2026).

A further important finding was the positive association of resilience with task performance ($r_s = .482$; $p < .001$), contextual performance ($r_s = .423$; $p = .002$), and overall work performance ($r_s = .465$; $p < .001$). These results extend the interpretation of resilience beyond its role as a mental-health resource. Recovery capacity was related to the behavioral dimension of occupational functioning, including planning, prioritization, goal-directed performance, initiative, professional development, and constructive participation in work-related interactions.

This finding constitutes a central element of the study's scientific contribution. Much of the previous literature on police resilience has focused on psychological distress, stress, or post-traumatic symptoms (Janssens et al., 2021; Sherwood et al., 2019; Syed et al., 2020). In the present study, resilience was simultaneously associated with adverse psychological indicators and with positive behavioral characteristics of occupational performance. This supports the use of the broader construct of “occupational functioning.”

The association between BRS resilience and counterproductive work behavior was negative, as hypothesized ($r_s = -.269$), but did not reach statistical significance ($p = .056$). One possible explanation is the limited variability of this scale in the sample ($M = .94$), together with the susceptibility of self-reported socially undesirable work behavior to social desirability bias. Likewise,

the non-significant findings for personal and work-related burnout demonstrate that the empirical pattern does not conform to a simple “more resilience – less of every adverse outcome” model.

The association between resilience and overall burnout ($r_s = -.310$; $p = .027$) also warrants cautious interpretation. Although it met the nominal $p < .05$ criterion, multiple correlations were tested. This finding should therefore be replicated in a larger independent sample. By contrast, associations with perceived stress, burnout related to interactions with people, task performance, contextual performance, and overall work performance yielded substantially smaller p -values and form a more robust core of the observed empirical profile.

The scientific novelty of the study lies in three features. First, it examines a distinctive occupational group: serving police officers who continued to work directly in frontline Kherson in 2026. Here, the frontline context is not merely a geographical descriptor but an occupational environment characterized by prolonged danger and uncertainty. Second, resilience was examined across three domains of occupational functioning: subjective stress, exhaustion, and behavioral work performance. Third, substantial occupational demands coexisted with relatively strong recovery capacity and a comparatively favorable group-level profile of work performance.

The findings have practical implications for the comprehensive monitoring of police psychological functioning. Assessing stress or burnout alone does not fully capture occupational functioning; indicators of psychological burden should be considered alongside recovery capacity and behavioral work-performance characteristics. Psychological programs should address recovery after stressful events, emotion regulation, stress management, the maintenance of effective professional interactions, and the early recognition of exhaustion, while remaining embedded in a broader system of organizational support.

Study limitations. First, the sample size was $n = 51$, limiting generalization to the wider National Police of Ukraine. Second, the gender distribution was markedly unbalanced, with men

comprising 94.1% of participants. Third, most participants had extensive service experience, and the observed profile may therefore partly reflect characteristics of experienced officers. Fourth, the cross-sectional correlational design does not establish causal direction. Fifth, the principal variables were assessed via self-report, creating potential for social desirability bias and common method variance. Sixth, the semantic adaptation of the CBI client-related component to interactions with people encountered during police duties requires further psychometric evaluation. Seventh, the study was conducted in a single frontline city without a comparison group of officers serving in areas with different levels of wartime threat.

Future research should employ multi-regional samples, compare officers serving in frontline and relatively safer areas, use longitudinal designs, and examine the roles of organizational and social support, length of service, duty type, and participation in psychological training. Testing mediation and moderation models may further clarify the conditions under which resilience is most strongly associated with preserved occupational functioning.

Conclusions

1. The 2026 study of police officers directly serving in frontline Kherson showed that high occupational demands and regular exposure to danger coexisted with a comparatively favorable group-level profile of psychological and occupational functioning. Mean resilience was $M = 4.02$, $SD = .61$; perceived stress, $M = 10.82$, $SD = 6.06$; overall burnout, $M = 28.31$, $SD = 16.82$; and overall work performance, $M = 2.89$, $SD = .76$.

2. The strongest association was observed between resilience and perceived stress ($r_s = -.560$; $p < .001$): greater capacity for psychological recovery was associated with lower subjective overload and lower perceived uncontrollability of current circumstances. The first specific hypothesis was supported.

3. The relationship between resilience and occupational burnout was differentiated across dimensions. Resilience was negatively associated with burnout related to interactions with people ($r_s = -.448$; $p < .001$) and with overall burnout

($r_s = -.310$; $p = .027$), whereas associations with personal and work-related burnout were not statistically significant. The second specific hypothesis was therefore partially supported.

4. Resilience was positively associated with task performance ($r_s = .482$; $p < .001$), contextual performance ($r_s = .423$; $p = .002$), and overall individual work performance ($r_s = .465$; $p < .001$). Its association with counterproductive work behavior was not statistically significant ($r_s = -.269$; $p = .056$). The third specific hypothesis was largely supported.

5. Taken together, the findings generally supported the primary hypothesis: higher resilience among police officers serving in frontline Kherson was associated with a more favorable profile of occupational functioning. Practical implementation should combine individual recovery, self-regulation, and stress-management skills with systemic organizational measures for the psychological support of police personnel serving for prolonged periods under heightened wartime threat.

Not Using AI Tools

No AI-assisted technologies were used in the writing, editing, or data analysis for this manuscript. All work is original and completed solely by the listed authors.

References

- Angehrn, A., Jourdan-Ionescu, C., & Gamache, D. (2023). Resilience among police officers: The role of personality functioning and protective factors. *Policing: An International Journal*, 46(3), 567–582. <https://doi.org/10.1108/PIJPSM-02-2023-0025>
- Bakker, A. B., & Demerouti, E. (2017). Job Demands-Resources Theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, 22(3), 273–285. <https://doi.org/10.1037/ocp0000056>
- Bolshakova, A. M., Dubinin, D. O., & Zaitseva, O. O. (2025). *Profesiine vyhorannia yak chynnyk protsesualnoi rezylientnosti pratsivnykiv politsii* [Professional burnout as a factor of processual resilience in police officers]. *Psykhohiia Bezpeky*, 1(1), 31–44. <https://doi.org/10.33405/3083-7235/2025/1/1/348251>
- Botnarenko, I. A., & Dziurbel, A. D. (2025). *Emotsiine vyhorannia v profesiinii diialnosti slidchoho orhanu Natsionalnoi politsii pid chas viiny* [Emotional burnout in the professional activity of a National Police investigator during war]. *Akademichni Vizii*, 49. <https://doi.org/10.5281/zenodo.17704104>
- Chykhantsova, O. A. (2023). *Rozvytok rezylientnosti osobystosti v sytuatsiakh nevyznachenosti* [Development of personality resilience in situations of uncertainty]. *Vcheni Zapysky Tavriiskoho Natsionalnoho Universytetu imeni V. I. Vernadskoho. Serii: Psykhohiia*, 34(73), 1, 35–40. <https://doi.org/10.32782/2709-3093/2023.1/07>
- Chykhantsova, O. A. (2025). *Rezylientnist yak osobystisnyi resurs ukraintsiv v umovakh voiennoho stanu* [Resilience as a personal resource of Ukrainians under martial law]. *Zhurnal Suchasnoi Psykhohiia*, 2, 146–153. <https://doi.org/10.26661/2786-7471/2025-2-16>
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24(4), 385–396. <https://doi.org/10.2307/2136404>
- Honcharova, Ya. I. (2024). *Spetsyfika proaktyvnoi kopinh-povedinky politseiskikh v umovakh voiennoho stanu* [Specificity of proactive coping behavior of police officers under martial law]. *Habitus*, 58, 227–231. <https://doi.org/10.32782/2663-5208.2024.58.38>
- Janssens, K. M. E., van der Velden, P. G., Taris, T. W., & van Veldhoven, M. J. P. M. (2021). Resilience among police officers: A critical systematic review of used concepts, measures, and predictive values of resilience. *Journal of Police and Criminal Psychology*, 36(1), 24–40. <https://doi.org/10.1007/s11896-018-9298-5>
- Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., van Buuren, S., van der Beek, A. J., & de Vet, H. C. W. (2013). Development of an individual work performance questionnaire. *International Journal of Productivity and Performance Management*, 62(1), 6–28. <https://doi.org/10.1108/17410401311285273>
- Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., de Vet, H. C. W., & van der Beek, A. J. (2014). Construct validity of the Individual

- Work Performance Questionnaire. *Journal of Occupational and Environmental Medicine*, 56(3), 331–337. <https://doi.org/10.1097/JOM.0000000000000113>
- Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., Lerner, D., de Vet, H. C. W., & van der Beek, A. J. (2016). Cross-cultural adaptation of the Individual Work Performance Questionnaire. *Work*, 53(3), 609–619. <https://doi.org/10.3233/WOR-152237>
- Kostruba, N., & Liashko, L. (2023). *Osobystisni osoblyvosti psykholohichnoi stiikosti molodi v umovakh viiny* [Personal characteristics of youth psychological resilience in war conditions]. *Psykholohichni Perspektyvy*, 42, 82–96. <https://doi.org/10.29038/2227-1376-2023-42-kos>
- Kristensen, T. S., Borritz, M., Villadsen, E., & Christensen, K. B. (2005). The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. *Work & Stress*, 19(3), 192–207. <https://doi.org/10.1080/02678370500297720>
- Medianova, O. V., Dvornichenko, L. L., Liubina, L. A., Shkrabiuk, V. S., & Kononenko, O. I. (2023). Psykholohichna rezylientnist osobystosti v umovakh viiny [Psychological resilience of the individual in war conditions]. *Perspektyvy ta Innovatsii Nauky*, 10(28), 601–611. [https://doi.org/10.52058/2786-4952-2023-10\(28\)-601-611](https://doi.org/10.52058/2786-4952-2023-10(28)-601-611)
- Moreno, A. F., Karanika-Murray, M., Batista, P., Hill, R., Rubiol Vilalta, S., & Oliveira-Silva, P. (2024). Resilience training programs with police forces: A systematic review. *Journal of Police and Criminal Psychology*, 39(1), 227–252. <https://doi.org/10.1007/s11896-023-09633-y>
- Ponomarenko, T., Fedorenko, A., & Khanetska, T. (2026). *Rezylientnist yak chynnyk efektyvnosti profesiinoy diialnosti psykholoha Natsionalnoi politsii Ukrainy v umovakh voiennoho stanu* [Resilience as a factor in the professional effectiveness of a psychologist of the National Police of Ukraine under martial law]. *Yurydychna Psykholohiia*, 1(38), 125–133. <https://doi.org/10.33270/03263801.13>
- Ponomarenko, Ya. S. (2024). *Analiz stresovykh chynnykiv u profesiinii diialnosti politseiskyykh pid chas viiny* [Analysis of stress factors in the professional activity of police officers during war]. *Naukovi Perspektyvy*, 8(50), 929–941. [https://doi.org/10.52058/2708-7530-2024-8\(50\)-929-941](https://doi.org/10.52058/2708-7530-2024-8(50)-929-941)
- Ponomarenko, Y., Zarichanskyi, O., Kalamkovik, M., & Zarichanska, N. (2025). Comparative study of the emotional burnout of police officers in wartime conditions. *Insight: The Psychological Dimensions of Society*, 14, 82–113. <https://doi.org/10.32999/2663-970X/2025-14-5>
- Schlosser, M. D., Papazoglou, K., & Kamkar, K. (2024). Editorial: Community series: Police trauma, loss, and resilience, volume II. *Frontiers in Psychology*, 15, 1348111. <https://doi.org/10.3389/fpsyg.2024.1348111>
- Sherwood, L., Hegarty, S., Vallières, F., Hyland, P., Murphy, J., Fitzgerald, G., & Reid, T. (2019). Identifying the key risk factors for adverse psychological outcomes among police officers: A systematic literature review. *Journal of Traumatic Stress*, 32(5), 688–700. <https://doi.org/10.1002/jts.22431>
- Shcherbak, T. (2024). *Doslidzhennia rezylientnosti volonteriv pid chas voiennoho stanu* [Study of volunteers' resilience during martial law]. *Slobozhanskyi Naukovyi Visnyk. Seriya: Psykholohiia*, 1, 200–205. <https://doi.org/10.32782/psyspu/2024.1.35>
- Shvets, D. V., & Kisil, Z. R. (2023). *Profesiina deformatsiia spivrobitnykiv Natsionalnoi politsii Ukrainy: Yurydyko-psykholohichni vymiry* [Professional deformation of employees of the National Police of Ukraine: A legal and psychological dimension]. *Pivdennoukrainskyi Pravnychi Chasopys*, 3(1), 301–305. <https://doi.org/10.32850/sulj.2023.3.48>
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The Brief Resilience Scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine*, 15(3), 194–200. <https://doi.org/10.1080/10705500802222972>
- Sokurenko, V., & Jarczewski, W. (2024). Activities of the National Police of Ukraine under martial law: Current challenges and prospects – potential for applying this experience in Poland. *Przegląd Strategiczny*, 17, 201–216. <https://doi.org/10.14746/ps.2024.1.14>
- Southwick, S. M., Bonanno, G. A., Masten, A.

- S., Panter-Brick, C., & Yehuda, R. (2014). Resilience definitions, theory, and challenges: Interdisciplinary perspectives. *European Journal of Psychotraumatology*, 5, 25338. <https://doi.org/10.3402/ejpt.v5.25338>
- Syed, S., Ashwick, R., Schlosser, M., Jones, R., Rowe, S., & Billings, J. (2020). Global prevalence and risk factors for mental health problems in police personnel: A systematic review and meta-analysis. *Occupational and Environmental Medicine*, 77(11), 737–747. <https://doi.org/10.1136/oemed-2020-106498>
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2, 53–55. <https://doi.org/10.5116/ijme.4dfb.8dfd>
- Ungar, M. (2018). Systemic resilience: Principles and processes for a science of change in contexts of adversity. *Ecology and Society*, 23(4), 34. <https://doi.org/10.5751/ES-10385-230434>
- Voloshyn, V. M. (2026). *Psykhologichni osoblyvosti profesiinoho funktsionuvannia personalu Natsionalnoi politsii Ukrainy v umovakh voiennoho stanu* [Psychological features of the professional functioning of personnel of the National Police of Ukraine under martial law]. *Naukovyi Visnyk Lvivskoho Derzhavnoho Universytetu Vnutrishnikh Sprav. Seriya Psykholohichna*, 1, 23–29. <https://doi.org/10.32782/2311-8458/2026-1-3>
- Vorobiova, O., & Okhrimenko, I. (2025). *Osoblyvosti samorehuliatcii politseiskyykh z riznym stazhem profesiinoy diialnosti* [Features of self-regulation of police officers with different lengths of professional service]. *Yurydychna Psykholohiia*, 1(36), 70–79. <https://doi.org/10.33270/03253601.8>
- Vyhivskiy, I., & Trembetskiy, A. D. (2024). *Diialnist Natsionalnoi politsii Ukrainy v umovakh rosiisko-ukrainskoi viiny (2014–2024): Orhanizatsiini zminy, bezpekovi vyklyky i zavdannia* [Activities of the National Police of Ukraine during the Russian-Ukrainian war (2014–2024): Organizational changes, security challenges and tasks]. *Skhidnoievropeyskiy Istorychnyi Visnyk*, 32, 148–157. <https://doi.org/10.24919/2519-058X.32.311509>