

DEMOGRAPHIC MODERATION OF THE ASSOCIATION BETWEEN TRAUMA EXPOSURE AND JOB PERFORMANCE AMONG POLICE OFFICERS IN NJORO SUB-COUNTY, KENYA

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ABSTRACT

Background: Occupational trauma is common in policing, but its association with job performance may vary across officer characteristics. **Objective:** To examine whether demographic and service characteristics modify the association between trauma exposure and self-reported job performance in Njoro Sub-County, Kenya. **Methods:** This analysis draws on a cross-sectional mixed-methods thesis involving 128 responding officers from a sample of 147 (87.1%) and interviews with five station commanders. Questionnaire data were summarized descriptively and examined using interaction terms in regression. **Results:** More than 70% of officers reported at least one traumatic exposure in the preceding six months. The reported direct trauma–performance coefficient was $B = -0.214$ ($SE = 0.073$, $p = .004$). Significant reported interactions were age ($B = 0.165$, $p = .013$), rank/years of service ($B = 0.182$, $p = .005$), education ($B = 0.138$, $p = .041$), marital status/family support ($B = 0.149$, $p = .016$), and deployment history ($B = 0.196$, $p = .003$, as stated in thesis narrative). Gender was not significant ($B = -0.092$, $p = .192$). **Conclusion:** The reported results suggest variation in the trauma–performance association across officer groups. Coding, reference categories, analytic sample sizes and model diagnostics are needed before the directions of individual interactions can be interpreted definitively.

Keywords: demographic factors; job performance; Kenya; moderation; police officers; trauma exposure

1. INTRODUCTION

Police work involves repeated contact with distressing incidents and substantial organizational demands. A systematic review of routine work-related critical incident exposure found that incident-specific factors were more consistently related to post-traumatic stress than age or years of service (Syed et al., 2020). Whether demographic characteristics modify the link between exposure and occupational performance is a distinct question requiring an interaction analysis. In Kenya, evidence from smaller operational settings remains limited.

This study examines the fourth objective of Omwenga’s 2026 thesis: whether age, gender, rank or service duration, education, marital status or family support, and deployment history moderate the association between trauma exposure and job performance among officers in Njoro Sub-County. The null hypothesis was that none of these interactions differs from zero.

2. THEORETICAL AND CONCEPTUAL FRAMEWORK

The thesis draws on cognitive theory and general strain theory. Cognitive appraisal offers a plausible account of how experience and available support may influence responses to occupational exposure. General strain theory emphasizes that repeated demands can impair functioning. For the present analysis, trauma exposure is the predictor and self-reported job performance the outcome; officer characteristics are proposed effect modifiers. These theories motivate the tests but do not determine the direction of any interaction without knowledge of coding and reference categories.

3. METHODS

Design and setting. This secondary presentation of thesis results uses a cross-sectional mixed-methods design. Fieldwork was reported for March–August 2025 in five police stations in Njoro Sub-County, Nakuru County. The target officer population was 238. A stratified sample of 147 officers was selected; 128 returned questionnaires. All five Officers Commanding Stations participated in interviews. The reported officer response rate was 87.1%.

Measures and analysis. The thesis used questionnaires covering trauma exposure, job performance and respondent characteristics, and thematic interviews with station commanders. Trauma exposure and performance were self-reported. Regression models incorporated trauma-by-characteristic product terms, with significance assessed at $\alpha = .05$. The source does not provide the variable coding, reference categories, full model specification, confidence intervals, interaction-specific sample sizes, model fit or diagnostics. Accordingly, coefficients below reproduce the thesis’s second regression table and are descriptive of the reported analysis; no new estimates were calculated.

Ethics. The thesis reports informed consent, voluntary participation, confidentiality and privacy safeguards. Approval identifiers and authorization details should be inserted from the original study records before submission.

4. RESULTS

Of 128 responding officers, 62 (48.4%) were aged 31–40 and 36 (28.1%) were aged 41–50. Gender was recorded for 127: 88 men (69.3%) and 39 women (30.7%). Rank was recorded for 124, education for 101 and marital status for 104. These differing denominators limit direct

comparison across characteristics. The thesis reports that more than 70% had experienced at least one form of trauma during the previous six months; an exact numerator and operational definition were not supplied.

Table 1. Reported trauma exposure and demographic interaction coefficients from thesis Table 15

Term	B	β	SE	t	p
Trauma exposure	-0.214	-0.186	0.073	-2.93	.004
Trauma $\times$ age	0.165	0.142	0.066	2.50	.013
Trauma $\times$ gender	-0.092	-0.081	0.070	-1.31	.192
Trauma $\times$ rank/years of service	0.182	0.165	0.063	2.89	.005
Trauma $\times$ education	0.138	0.119	0.067	2.06	.041
Trauma $\times$ marital status/family support	0.149	0.137	0.061	2.44	.016
Trauma $\times$ deployment history	0.196	0.174	0.065	3.01	.003*

*The source table truncates the deployment p-value at “0.”; .003 appears in the accompanying thesis narrative. The thesis also contains a separate interaction table with different coefficients and p-values. These discrepancies require verification against the statistical output before publication.

The direct association was negative in the reported model. Age, combined rank/service, education, combined marital status/support, and deployment history had reported p-values below .05; gender did not. The positive interaction coefficients cannot independently establish which group has a steeper slope because the thesis does not specify coding or reference categories. Combined constructs also prevent separation of rank from years of service and marital status from family support.

5. DISCUSSION

These results suggest heterogeneity in the association between trauma exposure and self-reported performance. The finding for gender was compatible with no detectable interaction in this sample. Differences across other characteristics could reflect exposure patterns, organizational roles, accumulated experience or access to support. The data do not establish which mechanism explains the associations. In particular, deployment history may represent operational context rather than a demographic attribute and can be related to the exposure measure itself.

The thesis narrative interprets older age and seniority as protective, while describing repeated high-risk deployment as harmful. The coefficient signs alone do not validate those subgroup claims without coding and simple-slope estimates. This distinction matters because a significant product term establishes effect modification under the fitted model, whereas the direction and practical size of group differences require predicted values, uncertainty intervals and a clear reference group. The systematic review by Syed et al. (2020) also counsels against treating age or tenure as universally protective for trauma-related outcomes.

Strengths include officer responses from five stations and contextual interviews. Limitations include cross-sectional measurement, self-reported outcomes, potentially different analytic denominators from missing demographic responses, multiple interaction tests, a modest sample for subgroup analysis and absent model diagnostics. The two thesis moderation tables disagree, and one p-value is incomplete in the primary table. Causal claims and nationally generalizable estimates are therefore unwarranted. Reporting should follow relevant STROBE items, including missing data, confounding, effect estimates and precision (von Elm et al., 2007).

6. CONCLUSION AND RECOMMENDATIONS

The thesis reports statistically significant interaction terms for several officer and service characteristics, but the available tables do not support a definitive ranking of vulnerable groups. Police services can provide confidential, accessible support after occupationally distressing incidents and examine exposure patterns across assignments without using demographic traits as a substitute for individual assessment. Before submission, the author should reconcile both regression tables with the original SPSS output, document coding and model specifications, report interaction-specific n and confidence intervals, and plot adjusted predicted performance across exposure levels for each moderator.

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