

Assessment of the Quality of Life Among Prison Employees in Kosovo: A WHOQOL-BREF Analysis

Milazim Gjocaj^{1,2}, Selvete Shuleta-Qehaja^{1*}, Nita Kelmendi¹, Blerim Krasniqi¹, Shqipe Ukelli^{1,2}, Astrit Rexhaj², Nora Salihaj², Shukrane Novobërdaliu², Arian Idrizaj¹, Labinot Shahini¹, Klodeta Kabashi¹, Shera Kosumi¹, Krenar Dobroshi¹

¹Alma Mater Europaea Campus College "Rezonanca," Prishtina, Kosovo

²Ministry of Health, Prishtina, Kosovo

Abstract

This study used the WHOQOL-BREF questionnaire to evaluate the quality of life (QoL) of prison staff in Kosovo. A cross-sectional survey of 622 staff members from different Kosovo prison facilities was carried out between June and August 2023. To measure quality of life, 26 items from four domains (physical health, psychological health, social interactions, and environment) were included in the WHOQOL-BREF questionnaire. According to the study, the general health score was 57.8, the environment and social connection domains had the lowest scores, and the overall QoL mean score was 68.1. In the environment domain, there were notable gender disparities, with females scoring better. Significant psychological and social relationship differences were associated with marital status, favoring married persons. Increased results in every domain were positively correlated with increased educational attainment. Age-related differences were seen, with the age group of 31 to 40 exhibiting the highest level of psychological well-being. Correctional staff performed the best in physical and psychological domains, while healthcare workers performed the worst. The results emphasize that customized interventions are required to promote social support, educational possibilities, and work environment circumstances to improve the general well-being of prison staff. By addressing these variables with focused techniques, QoL can be significantly improved, benefiting the prison system and the workforce. (**International Journal of Biomedicine. 2024;14(4):679-685.**)

Keywords: quality of life • WHOQOL-BREF • prison employees • Kosovo

For citation: Gjocaj M, Shuleta-Qehaja S, Kelmendi N, Krasniqi B, Ukelli S, Rexhaj A, Salihaj N, Novobërdaliu S, Idrizaj A, Shahini L, Kabashi K, Kosumi S, Dobroshi K. Assessment of the Quality of Life Among Prison Employees in Kosovo: A WHOQOL-BREF Analysis. International Journal of Biomedicine. 2024;14(4):679-685. doi:10.21103/Article14(4)_OA23

Introduction

World Health Organization (WHO) defines Quality of Life (QoL) as "an individual's perception of their position in life in the context of the culture and value systems in which they live and about their goals, expectations, standards, and concerns."¹ There are many general instruments available to measure quality of life, and the World Health Organization Quality of Life Instrument, Short Form (WHOQOL-BREF) questionnaire is a commonly utilized generic measure of quality of life that is used to measure quality of life in healthy people and different groups of patients. The WHOQOL-BREF is being developed as a short version of the WHOQOL-100 for use when time is restricted, respondent burden must be minimized, and where facet-level detail is unnecessary, e.g.,

with extensive epidemiological surveys and some clinical trials.² The WHOQOL-BREF comprises 26 items that measure four domains: physical health, psychological health, social relationships, and environment.¹

QoL assessments have gained increasing attention in correctional settings, reflecting the growing recognition of the unique challenges faced by prison employees. The QoL of prison staff is influenced by many factors, including the demanding nature of their work environment, exposure to stressful situations, and interactions with inmates. Evaluating QoL is crucial for understanding the factors influencing individuals' well-being, such as prison staff. This importance is emphasized by Keller et al.,³ who discuss the International Quality of Life Assessment (IQOLA) Project's role in evaluating translations of health status questionnaires to

ensure cross-cultural validity in health-related quality of life measurements.

Ten (10) prisons in Kosovo can house up to two thousand five hundred prisoners. These establishments are categorized as five (5) prisons for convicted criminals (one for minors, one for women, one for men serving long-term sentences, one for men serving short-term sentences, and one for high security) and five (5) additional detention facilities for people on remand that are dispersed throughout Kosovo. Ten (10) prison health units (PHU), six (6) medical clinics, and three (3) medical stationery are available in each of those facilities. Essential health services and 24-hour medical care are available at all PHUs.⁴

At Kosovo Prison System, currently, there are 1,617 employees, 1,361 correctional officers, and 256 civilian staff, all of whom are part of the Ministry of Justice. The prison's health service belongs to the Ministry of Health, with 140 medical staff, 68 females and 72 males. Correctional staff is engaged 24 hours at the service with the shifts, most at least 12 hours on the job. Other civilian staff are involved on working days, at least 8 hours a day on the job.⁵

Working conditions at the Kosovo prisons have improved since the facilities and buildings were damaged during the last war in 1999. The United Nations Administration in Kosovo supported the prison system from 1999 until 2008, and it was established according to UN rules, European Prison Rules, and Recommendations from the Committee for Prevention of Torture—CPT of the Council of Europe. The prison environment can be more adverse than that of many other occupations and is considered high-risk. One factor contributing to hostility and conflicts in the prison environment is the increasing prison population worldwide.⁶

During the 25 years since the prison system was functional with new capabilities and competencies under Kosovo's responsibility, there were several difficulties and obstacles for all employed staff to manage the proper running of the system. The working conditions are different from other working places since prison employees are faced with limitations such as limitation of movement and contact with the outside and their family members during working hours, as well as they have to deal with persons deprived of their freedom and who may be accompanied by a lot of vulnerabilities. The rules are strictly respected, and employees' salaries are around 550€.⁵

The job of people working in the prison system is unique and different from that of other employees in Kosovo. The specifics of the working place and conditions, the last war, and PTSD as an issue make it more important to assess their QoL. There are no studies on the QoL of Prison Employees in Kosovo, and this study aimed to determine the factors related to the QoL of Prison Employees in Kosovo's prison facilities.

Several published studies have highlighted the prison work environment's significant impact on employees' QoL. The high-stress nature of the job, long working hours, and the possibility of violence create a complex occupational setting, leading to burnout, decreased job satisfaction, and lower QoL.^{7,8} Additionally, the negative influence of prison work on sleep health has been reported, with a significant association

between exposure to work-related critical incidents and sleep problems.⁹ The study conducted by Bezerra et al.¹⁰ on sleep disorders among correctional officers acknowledged a high prevalence of severe sleep problems associated with mental health impairments, stress, and workplace violence. This study highlights the impact of work-related stressors on correctional officers' sleep health and overall quality of life.

Another factor that has been validated is the role of social support in relieving stress and enhancing QoL among prison employees. The studies indicate that employees with robust support systems within and outside their workplace report higher psychological well-being and overall life satisfaction. Additionally, mental health issues such as post-traumatic stress disorder (PTSD) and depression prevalent among prison staff can significantly affect their QoL.^{11,12} In their study, Keinan and Malach-Pines¹³ proposed strategies for preventing and reducing stress and burnout among prison personnel. Furthermore, the research conducted by Boudoukha et al.¹⁴ investigated the impact of inmate-to-staff assaults on PTSD and burnout among prison employees.

Dignam et al.¹⁵ emphasized the importance of workplace social support in reducing burnout symptoms by alleviating the effects of job stress, particularly role ambiguity and workload. Ellison and Caudill¹⁶ in their research article, found that prison officers experience heightened stress due to high job demands, lack of support, and exposure to violence; hence, support from coworkers and family members is essential for stress reduction. Additionally, Lambert et al.⁸ supported those numerous types of social support (family, coworker, supervisor) significantly influence different dimensions of job burnout among correctional staff, with evident impacts on emotional exhaustion and depression symptoms. In addition, social support is essential in reducing job stress and improving the quality of work life (QWL) among industrial workers, which can apply to prison staff.¹⁷ Their findings reveal that violent interactions with inmates significantly increase the risk of PTSD and burnout, underscoring the need for supportive measures to address these issues.

Armstrong and Griffin¹⁸ analyzed stress among correctional officers and treatment personnel, finding that both groups reported high levels of job stress and stress-related health concerns. Steiner and Wooldridge¹⁹ assessed work stress among prison officers in Ohio and Kentucky, highlighting the significance of a supportive work environment and effective management practices in reducing work-related stress and improving prison officers' mental health and job satisfaction. Finney et al.²⁰ conducted a systematic review, identifying that organizational structure and climate play pivotal roles regarding job stress and burnout among correctional officers. According to the authors, intervention in improving communication between management and staff reduces stress and burnout. Butler et al.²¹ conducted a 2019 meta-analytic review focusing on job satisfaction, job stress, and organizational commitment of correctional officers, reporting that organizational factors, particularly supervisor and peer support, significantly influenced job satisfaction, job stress, and organizational commitment. Factors like age, supervisor support, and peer support influenced job satisfaction.

A recent review article covered published literature from January 2015 to March 2020 on predictors of job stress and burnout among prison staff. The results pointed out that common predictors of increased stress and burnout among prison staff included perceived job dangerousness and work-family conflict. Conversely, participation in decision-making and social support consistently decrease job stress.²² Similarly, research in the United States has shown that correctional staff often experience poor QoL as a result of high stress levels, deficient support, and challenging work conditions.⁸ The study by Araújo et al.⁶ mentioned the awareness related to factors of QoL among prison officers in Brazil, such as workload, job control, and social support. The research highlighted the importance of prison management in developing strategies to prevent workplace violence and promote the welfare of prison employees. The health-related quality of life (HRQoL) research among criminal police officers in China was performed by Wu et al.,²³ and it was demonstrated that age, alcohol consumption, physical activity levels, and symptoms of anxiety or depression were significant factors that influenced the HRQoL. This research study found that older officers, those who drank alcohol, or those experiencing anxiety and depression were more likely to report lower HRQoL. Police officers who were engaged in regular physical activity showed better health outcomes, thus suggesting that lifestyle modifications could play an essential role in improving the welfare of police officers. Similarly, another study analyzed the quality of life, health conditions, and lifestyle of Civil Police Officers in Porto Alegre/RS found that healthier lifestyle choices, including regular physical activity and healthy eating, correlated with better quality of life scores.²⁴

Another research study investigated the HRQoL of military police officers in Salvador, Brazil. Its findings showed low HRQoL scores, especially in general health and social functioning, which were significantly correlated with poor workability, high alcohol consumption, and younger age.²⁵ A study in the UK highlighted the adverse effects of occupational stress on the mental health and overall QoL of prison officers.²⁶ In 2019, Skar et al.²⁷ explored the association between the quality of prison life, violence, and mental health in Dubrava prison. They identified that higher levels of respect, fairness, humanity, and good staff/prisoner relationships were associated with lower levels of violence. These results suggest that promoting QoL and good mental health among prisoners creates a better working environment for prison staff. Furthermore, a research study by Feijó et al.²⁸ analyzed the QoL and occupational stress among prison officers in Brazil and found that psychological demands and low social support were strongly correlated with worse scores in all domains of QoL. Anxiety and depression were also strongly referred to worse QoL outcomes. A European overview from the OSCAR project emphasized the concern of work-related stress and its influence on job satisfaction and healthy psycho-social functioning.²⁹

In recent years, various studies have assessed different aspects of prison life and its effects on inmates and staff. Thus, Gonçalves et al.³⁰ explored the occupational factors associated with poor sleep quality among correctional officers in Brazil, finding significant associations with mental demands and psychological violence at work. Kosovo

Correctional Service Reports have also documented various initiatives to improve prison conditions and the well-being of inmates and staff. These reports detail collaborative efforts with organizations such as Help Kosovo to provide training and equipment to correctional facilities, significantly enhancing service quality.³¹ Furthermore, the nursing impact at Kosovo prison health services has been explored by Gjocaj et al.,⁴ emphasizing the critical role of medical care in improving the quality of life for inmates and staff alike. This work highlights the importance of comprehensive health services in addressing prison populations' unique challenges.

Material and Methods

This study was a cross-sectional study of personnel working in prisons in Kosovo. The General Director approved this study of the prisons, and verbal informed consent was obtained from each participant. The study included the staff employed in the prisons of Kosovo, which consisted of administrative/civil staff, correctional staff, and healthcare personnel. The anonymity and confidentiality of all participants were assured. The research took place from June until August 2023. Nurses trained beforehand and employed in those institutions delivered the questionnaires during working hours to the employees and gave instructions regarding the filling procedures of the WHO-BREF questionnaire. The same collected the returned questionnaires in envelopes and delivered them to the authors of the research.

The WHOQOL-BREF questionnaire, comprising 26 questions, was utilized to perform the quality-of-life assessment in this study. The remaining 24 items are broken down into four domains: physical (seven questions), psychological (six questions), social relationships (three questions), and environment (eight questions). Two particular questions that assess overall quality of life and general health are included in this. A Likert scale of 1 to 5 was used to evaluate the responses per the WHO recommendations.¹ Each domain's scores were converted to a 0–100 scale, with higher scores denoting a higher quality of life and higher scores corresponding to a better quality of life perspective. Cronbach's alpha coefficient was used to evaluate the instrument's internal consistency, and the acceptable alpha values range from 0.70 to 0.95.³²

The socio-demographic characteristics of the participants were also elaborated upon in the study. The WHOQOL-BREF was used to calculate the minimum, maximum, mean, standard deviation, and 95% confidence interval (CI) values for each domain, including overall quality of life and general health. The focus of the study was the physical, psychological, social, and environmental domains. Student's t-test and ANOVA were used to find mean differences in the WHOQOL-BREF domains across different exposure variable strata, with p-values less than 0.05 considered significant. Version 27.0 of the SPSS program was used for all analyses.

Results

The most significant number of respondents were men, 75.1%, while women represented 24.9% of the respondents.

The higher percentage of men can also be explained by the fact that the number of employees in these institutions includes a more significant number of males due to the specific nature of the work. A substantial portion of respondents were within the 41-50 age range, encompassing 32.0% of the individuals, followed by the category 51-60 age range, the second most common, representing 28.0%. A large majority (78.8%) of the respondents were married. The most common work position was for correctional staff, accounting for 62.9% of the respondents. Regarding education levels, 60.3% of respondents were in secondary school, and 39.7% are in tertiary education (Table 1).

Table 1.
Socio-demographic characteristics of prison employees (n = 622).

Variable	n	%
Gender		
Male	467	75.1
Female	155	24.9
Age in years		
18-30	54	8.7
31-40	155	24.9
41-50	199	32
51-60	174	28
61-65	40	6.4
Married		
Yes	490	78.8
No	132	21.2
Education level		
Secondary	375	60.3
Tertiary	247	39.7
Job position		
Civil staff	110	17.7
Correctional staff	391	62.9
Healthcare staff	121	19.5

Table 2 displays the mean scores for the two main WHOQOL-BREF particular questions: general health and overall quality of life. The results indicate that employees emphasize overall QoL (mean score 68.1) more than general health (mean 57.8). The domain scores are shown in Table 3. The WHOQOL-BREF domains with the lowest scores were the environment domain (62.6 ± 14.0) and the social domain (63.0±20.6). Table 4 represents the analysis results performed to identify independent variables that may be related to the WHOQOL-BREF domains among prison employees.

Table 2.
Scores of each of the general issues of WHOQOL-BREF of prison employees.

General Issues	Minimum	Maximum	Mean±SD	95% CI
The overall QoL	25.0	100.0	68.1±17.5	66.8–69.5
General Health	20.0	80.0	57.8±14.3	56.6–58.9

Table 3.
Scores of domains of the WHOQOL-BREF in prison employees.

Domain	Minimum	Maximum	Mean±SD	95% CI	CC
Physical	27.0	100.0	68.6±13.4	67.6–69.7	0.770
Psychological	20.0	100.0	71.8±13.1	70.8–72.9	0.769
Social relationships	0.0	100.0	63.0±20.6	61.4–64.7	0.713
Environment	11.0	100.0	62.6±14.0	61.50–63.70	0.812

CC - Cronbach Coefficient

Table 4.
Variables that may be related to the WHOQOL-BREF domains among prison employees.

Domain	Parameter	Gender		Marital status		Educational level		Age					Job position		
		Male	Female	Married	Not married	Secondary school	University	18-30	31-40	41-50	51-60	61-65	Administration	Correction	Health-care
Physical	Mean	68.94	67.72	69.2	66.52	67.16	70.88	67.47	69.51	70.44	66.67	66.42	67.24	69.39	67.47
	SD	13.209	13.956	12.922	14.895	13.374	13.146	13.11	13.63	13.647	12.2	15.57	12.298	13.96	12.375
	P-value	0.342		0.06		<0.001		0.049					0.188		
Psychological	Mean	72.09	71.07	72.65	68.79	69.74	75.01	71.93	73.94	71.76	70.6	69.3	72.04	72.18	70.51
	SD	13.326	12.499	12.447	22.314	13.254	12.278	12.322	13.99	12.679	12.43	15.14	12.146	13.45	12.932
	P-value	0.39		0.007		<0.001		0.134					0.466		
Social Relationships	Mean	63.62	61.29	64.24	58.56	60.08	67.53	68.33	63.87	64.47	59.89	59.25	65.36	62.86	61.49
	SD	20.788	20.088	19.998	22.314	21.023	19.19	18.505	21.57	20.489	20.96	16.7	18.358	21.84	18.378
	P-value	0.216		0.009		<0.001		0.037					0.349		
Environment	Mean	61.94	64.59	62.5	62.97	60.8	65.33	65.5	62.47	62.9	61.74	61.43	63.48	62.29	62.81
	SD	14.057	13.758	13.257	16.598	14.071	13.515	16.686	14.88	12.62	13.74	14.64	12.411	14.54	13.737
	P-value	0.04		0.767		<0.001		0.502					0.721		

Discussion

The results show that gender significantly differs in the environmental domain, with females scoring higher on average. Also, significant differences were observed within marital status in the Psychological and Social Relationships domains favoring married individuals, suggesting that married individuals might experience better psychological well-being, possibly due to shared responsibilities. Another factor associated with the WHO-BREF domains was educational level, where individuals with tertiary-level education were associated with higher scores across all domains than individuals with secondary-level education ($P < 0.001$). According to the results, different age groups showed variations in scores, whereas, in Physical Domain, scores tended to be higher in the 41-50 years group, with a slight decrease in the 51-60 years group and 61-65 years' group ($P < 0.049$). Regarding the Psychological Domain, the 31-40-year-old group showed the highest average score, suggesting better psychological well-being in this age group. Younger age groups (18-30 years) had higher scores in the Social Relationships Domain ($P < 0.037$), indicating potentially stronger social relationships. As per the Environment Domain, the 18-30 years' group scored the highest, with a gradual decrease in scores as age increased, but were not statistically significant.

There were no statistical differences regarding job positions, but correction employees scored the highest (69.39) and Healthcare the lowest (67.47) in the physical domain. This variation suggests that job roles influence physical well-being. Similarly, in the psychological domain, the correction employees scored highest (72.18) compared to other employee groups, indicating that this job role may positively impact psychological health.

The findings from this study are consistent with existing literature that highlights the significant impact of occupational stress and environmental factors on the QoL of prison staff. For example, Schaufeli and Peeters⁷ and Lambert et al.⁸ discuss how working in prisons is highly stressful, resulting in burnout and declining job satisfaction. The lower results in our study's social relationships and environment categories corroborate this.

According to Griffin et al.¹¹ and Keinan and Malach-Pines,¹³ social support is critical in reducing stress and improving quality of life. Our results confirm prior studies by demonstrating that married people had higher psychological and social domain scores, which suggests that social support has a buffering effect. Research by James et al.⁹ and Bezerra et al.¹⁰ has demonstrated the detrimental effects of prison work on sleep health and overall psychological well-being. Our study's findings, which show lower general health scores among prison staff, underscore the necessity of addressing occupational stressors and improving working conditions. The significant correlation between higher education and better QoL across all domains aligns with the conclusions of Araújo et al.⁶ and Wu et al.,²³ who highlighted the crucial role of educational and professional development in enhancing QoL.

Conclusion

This study uses the WHOQOL-BREF instrument to evaluate Kosovo's prison staff's QoL thoroughly. The results show that age, gender, marital status, and education level are critical variables that significantly impact these employees' quality of life. The findings show that more educated, married, and female employees generally report a higher quality of life in various dimensions. Younger employees also performed better in the environment and social interactions, indicating that age is a significant factor in perceived quality of life.

The study finds that an education degree significantly raises QoL across the four domains. Additionally, higher scores in some domains are associated with being female or married individuals, suggesting complex effects on quality of life from societal and personal factors. These outcomes demonstrate the complexity of the variables affecting the QoL of prison staff members and suggest the potential advantages of tailored interventions that prioritize social support, education, and needs particular to a given gender. Policymakers and prison administrators in Kosovo must consider these observations to enhance their staff's working environment and general life satisfaction.

This study has some significant limitations that should be noted in addition to its insightful information. It is limited to assuming that the components identified are causally related to QoL because of the cross-sectional methodology. Because the study used self-reported data, it may have been influenced by response biases such as social desirability bias. Future studies should consider including objective measures of stress and well-being to validate the results based on self-report. Intervention studies should be implemented and assessed to address the identified factors affecting QoL, such as professional growth opportunities, social support networks, and stress management programs. It is essential to support laws that put prison workers' health first, such as those that provide better working conditions, sufficient staffing, and access to mental health services. Research comparing various countries has to be carried out to identify shared obstacles and optimal methods for enhancing QoL for correctional staff worldwide. By considering these suggestions, future research can expand on the results of the current study and help develop practical solutions to improve the QoL of prison staff by addressing these recommendations, which will ultimately benefit the correctional system as a whole.

Competing Interests

The authors declare that they have no competing interests.

Acknowledgements

The authors thank all employees who participated in this study.

References

1. WHO. WHOQOL-BREF: Introduction, administration, scoring and generic version of the assessment: Field trial version December 1996. Geneva: World Health Organization. Online available from: <https://www.who.int/publications/i/item/WHOQOL-BREF>.
2. Skevington SM, Lotfy M, O'Connell KA; WHOQOL Group. The World Health Organization's WHOQOL-BREF quality of life assessment: psychometric properties and results of the international field trial. A report from the WHOQOL group. *Qual Life Res.* 2004 Mar;13(2):299-310. doi: 10.1023/B:QURE.0000018486.91360.00. PMID: 15085902.
3. Keller SD, Ware JE Jr, Gandek B, Aaronson NK, Alonso J, Apolone G, Bjorner JB, Brazier J, Bullinger M, Fukuhara S, Kaasa S, Lepège A, Sanson-Fisher RW, Sullivan M, Wood-Dauphinee S. Testing the equivalence of translations of widely used response choice labels: results from the IQOLA Project. *International Quality of Life Assessment. J Clin Epidemiol.* 1998 Nov;51(11):933-44. doi: 10.1016/s0895-4356(98)00084-5. PMID: 9817110.
4. Gjocaj M, Ukelli S, Shahini L, Kabashi K, Muçaj S, Musa J, et al. The nursing impact at Kosovo prison health services. *International Journal of Africa Nursing Sciences.* 2023;XX, Article 100664.
5. Kosovo Correctional Service. Annual Report 2023. Online available from: <https://shkk.rks-gov.net/wp-content/uploads/2024/04/Raporti-vjetor-i-punes-2023-1.pdf>. Accessed 07 07 2024.
6. Araújo CSC, Minamisava R, Matos MA, Vieira CCF, Vitorino PVO, Rodríguez-Martín D, Chaveiro N, Oliveira LMAC, Brasil VV, Nogueira DJ, Salha LA, Barbosa MA. Associated Factors of Quality of Life in Prison Officers, Brazil. *Int J Environ Res Public Health.* 2020 May 17;17(10):3508. doi: 10.3390/ijerph17103508.
7. Schaufeli WB, Peeters MC. Job stress and burnout among correctional officers: A literature review. *International Journal of Stress Management.* 2000;7(1):19-48.
8. Lambert EG, Hogan NL. Correctional Staff: The Issue of Job Stress. In: Ternes M, Magaletta PR, Patry MW, editors. *The Practice of Correctional Psychology.* Cham: Springer International Publishing; 2018. DOI: 10.1007/978-3-030-00452-1_12
9. James L, Todak N, Best S. The negative impact of prison work on sleep health. *Am J Ind Med.* 2017;60(5):449-456. doi:10.1002/ajim.22714.
10. Bezerra GL, Carvalho FM, Fernandes RCP, Santos KOB. Sleep disorders in correctional officers: cross-sectional study. *Sleep Sci.* 2022 Jan-Mar;15(1):34-40. doi: 10.5935/1984-0063.20210027.
11. Griffin ML, Hogan NL, Lambert EG. Career Stage Theory and Turnover Intent Among Correctional Officers. *Criminal Justice and Behavior.* 2014;41(1):4-19.
12. Evers TJ, Ogloff JRP, Trounson JS, Pfeifer JE. Well-Being Interventions for Correctional Officers in a Prison Setting: A Review and Meta-Analysis. *Crim Justice Behav.* 2020;47(1):3–21. DOI: 10.1177/0093854819869975.
13. Keinan G, Malach-Pines A. Stress and burnout among prison personnel: Sources, outcomes, and intervention strategies, *Criminal Justice and Behavior.* 2007;34(3):380-398.
14. Boudoukha AH, Altintas E, Rusinek S, Fantini-Hauwel C, Hautekeete M. Inmates-to-staff assaults, PTSD and burnout: profiles of risk and vulnerability. *J Interpers Violence.* 2013 Jul;28(11):2332-50. doi: 10.1177/0886260512475314. Epub 2013 Feb 11. PMID: 23400884.
15. Dignam JT, Barrera M Jr, West SG. Occupational stress, social support, and burnout among correctional officers. *Am J Community Psychol.* 1986 Apr;14(2):177-93. doi: 10.1007/BF00911820. PMID: 3717088.
16. Ellison JM, Caudill JW. Working on local time: Testing the job-demand-control-support model of stress with jail officers. *J Crim Justice.* 2020 Sep-Oct;70:101717. doi: 10.1016/j.jcrimjus.2020.101717. Epub 2020 Aug 13. PMID: 32836499; PMCID: PMC7423515.
17. Eisapareh K, Nazari M, Kaveh MH, Ghahremani L. The relationship between job stress and health literacy with the quality of work life among Iranian industrial workers: The moderating role of social support. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues.* 2022;41(5):2677–2685
18. Armstrong GS, Griffin ML. Does the job matter? Comparing correlates of stress among treatment and correctional staff in prisons, *Journal of Criminal Justice.* 2004;32(6):577-592.
19. Steiner BM, Wooldredge J. Individual and environmental sources of work stress among prison officers, *Criminal Justice and Behavior.* 2015;42(8):800-818.
20. Finney C, Stergiopoulos E, Hensel J, Bonato S, Dewa CS. Organizational stressors associated with job stress and burnout in correctional officers: a systematic review. *BMC Public Health.* 2013 Jan 29;13:82. doi: 10.1186/1471-2458-13-82. PMID: 23356379; PMCID: PMC3564928.
21. Butler HD, Tasca M, Zhang Y, Carpenter C. A systematic and meta-analytic review of the literature on correctional officers: Identifying new avenues for research, *Journal of Criminal Justice.* 2019;60(2):84–92.
22. Costa V, Monteiro S, Cunha AI, Pereira H, Esgalhado G. Job stress and burnout among prison staff: a systematic literature review *Journal of Criminal Psychology.* 2024;14(2):196–212.
23. Wu X, Liu Q, Li Q, Tian Z, Tan H. Health-Related Quality of Life and Its Determinants among Criminal Police Officers. *Int J Environ Res Public Health.* 2019 Apr 18;16(8):1398. doi: 10.3390/ijerph16081398.
24. Costa FGD, Vieira LS, Cócáro MG, Azzolin KO, Dal Pai D, Tavares JP. Quality of life, health conditions and life style of civil police officers. *Rev Gaucha Enferm.* 2020 Jun 12;41:e20190124. doi: 10.1590/1983-1447.2020.20190124.
25. Barreto CR, Carvalho FM, Lins-Kusterer L. Factors associated with health-related quality of life of military policemen in Salvador, Brazil: cross-sectional study. *Health Qual Life Outcomes.* 2021 Jan 18;19(1):21. doi: 10.1186/s12955-020-01661-0.
26. Kinman G, Clements AJ, Hart J. Work-related wellbeing in UK prison officers: A benchmarking approach. *Int J*

- Workplace Health Manag.2016;9(3):290-307. <https://doi.org/10.1108/IJWHM-09-2015-0054>.
27. Skar M, Lokdam N, Liebling A, Muriqi A, Haliti D, Rushiti F, Modvig J. Quality of prison life, violence and mental health in Dubrava prison. *Int J Prison Health*. 2019 Aug 29;15(3):262-272. doi: 10.1108/IJPH-10-2017-0047.
28. Feijó F, Bunchen C, Kersting I, Oliveira PAB. Mental health and quality of life are strongly associated to occupational stress: A study with workers from a youth custody centre in Brazil. *Occup Environ Med*.2018;75:A606.
29. Ryan P, Hill R, Anczewska M, Hardy P, Kurek A, Nielson K, Turner C; Oscar Group. Team-based occupational stress reduction: a European overview from the perspective of the OSCAR Project. *Int Rev Psychiatry*. 2005 Oct;17(5):401-8. doi: 10.1080/09540260500238645.
30. Gonçalves SG, Mesas AE, Bravo DS, Birolim MM, Guidoni CM, Andrade SM, Rodrigues R. Association between sleep quality and occupational factors in Brazilian correctional officers. *Behav Sleep Med*. 2023 Jul-Aug;21(4):397-410. doi: 10.1080/15402002.2022.2106985. Epub 2022 Aug 5. PMID: 35930240.
31. Help Kosovo. Project “Support to socio-economic stability in the western Balkans region 2019-2020”. Online available from: <https://help-kosovo.org/correctional-institutions-2/>. Accessed 28 06 2024.
32. Tavakol M, Dennick R. Making sense of Cronbach's alpha. *Int J Med Educ*. 2011 Jun 27;2:53-55. doi: 10.5116/ijme.4dfb.8dfd. PMID: 28029643; PMCID: PMC4205511.
-
- *Corresponding author:** Prof. Asoc. Selvete Shuleta-Qehaja, Alma Mater Europaea Campus College “Rezonanca,” 10000, Prishtina, Kosovo. E-mail: selvete.shuleta@rezonanca-rks.com.
-