

Association between work profile and cardiovascular risk factors among police personnel: a cross-sectional study

Pooja Vyas^{1*}, Meena Parmar², Himani Pandya³, Shardul Chaurasia², Rajesh Chaudhary¹, Rajvi Kanala¹

¹Department of Cardiology, U.N. Mehta Institute of Cardiology and Research Centre (UNMICRC), Civil Hospital Campus, Asarwa, Ahmedabad-380016, Gujarat, India.

²Department of Clinical Cardiology, U. N. Mehta Institute of Cardiology and Research Centre (UNMICRC), Civil Hospital Campus, Asarwa, Ahmedabad-380016, Gujarat, India.

³Department of Research, U. N. Mehta Institute of Cardiology and Research Centre (UNMICRC), Civil Hospital Campus, Asarwa, Ahmedabad-380016, Gujarat, India.

Abstract

Background and objective: The police force constitutes a special occupational group that requires particular attention to reduce cardiovascular risk and prevent premature cardiovascular disease (CVD). This cross-sectional study aimed to compare the prevalence of cardiovascular risk factors between police personnel engaged in fieldwork and those engaged in office work.

Materials and methods: A cross-sectional study design was employed, involving 2380 police personnel who attended preventive cardiac health check-ups between April 2023 and November 2023. Their demographic characteristics, department, post held, personality type, anthropometric parameters, addiction history, blood pressure, major illness history, dietary intake, and exercise were noted. Laboratory parameters including haemoglobin, serum creatinine, fasting blood sugar, and lipid profile were screened. Based on working patterns, we compared baseline characteristics and risk factors between fieldwork and office work groups. Logistic regression analysis was performed with work profile (Fieldwork=1, Office=0) as the dependent variable to identify factors independently associated with fieldwork.

Results: After multivariable adjustment (including age and sex), systolic pressure (OR 1.01, 95% CI 1.008-1.02, $P<0.001$), daily junk food consumption (OR 2.9, 95% CI 2.3-3.62, $P<0.001$), type A personality (OR 1.52, 95% CI 1.21-1.92, $P<0.001$) and lack of exercise (OR 1.47, 95% CI 1.18-1.83, $P=0.001$) were independently associated with belonging to the fieldwork group.

Conclusion: Fieldwork among police personnel was associated with a higher burden of adverse lifestyle and metabolic risk factors compared to office work. These findings highlight the need for targeted occupational health interventions in this subgroup.

Introduction

The population's health is greatly influenced by environmental factors and working situations [1].

There are several factors associated with the working conditions of police officers, including unanticipated events, high levels of physical and

***Correspondence:** Pooja Vyas, Department of Cardiology, U.N. Mehta Institute of Cardiology and Research Centre (UNMICRC), Civil Hospital Campus, Asarwa, Ahmedabad-380016, Gujarat, India. Email: poojavaskothari@gmail.com.

© 2026 The Author(s) This is an open access article distributed under the terms of the [Creative Commons Attribution License](https://creativecommons.org/licenses/by/4.0/) (CC BY 4.0)

mental stress, and unpredictable emergencies [2]. The four main behaviors that lead to the majority of non-communicable illnesses are using tobacco products, not exercising, eating poorly, and drinking alcohol in excess. Four significant physiological or metabolic alterations are brought on by these behaviors: higher blood pressure, overweight/obesity, elevated blood glucose, and elevated cholesterol [3]. Even if their socioeconomic status has improved over the previous 10 years, police officers still have a higher frequency of typical risk factors, such as tobacco use, poor nutrition, physical inactivity, and hazardous alcohol intake [4,5]. Globally and in India as well, these four modifiable behavioural risk factors bear the primary blame for the enormous burden of non-communicable illnesses. In India, non-communicable illnesses constituted 63% of all fatalities in 2016, with cardiovascular diseases accounting for 27% of those cases. Additionally, 45% of fatalities in the 40–69 age range are related to CVDs [6,7]. Numerous studies revealed that the stress of their jobs affected their physical and mental health. Because of these work-related stressors, people tend to adopt unhealthy lifestyles, which include irregular eating patterns, restricted food options while on duty, working overtime, interrupted sleep patterns, and dangerous alcohol and tobacco usage, which can cause high blood pressure, heart attacks, and mental stress [3, 4, 7]. Furthermore, research has indicated that police officers are subject to ongoing non-traumatic stress due to the demands of their line of work. For example, pressures from the public, courts, the media, and superiors can worsen stress-related conditions, such as insomnia among law enforcement personnel [8,9]. The police force constitutes a special occupational group that requires special attention to prevent premature cardiovascular risk factors. By understanding the unique challenges faced by police officers and taking proactive steps to address their cardiovascular health, primary care providers and family physicians can play a crucial role in improving the overall well-being of this important community. Early intervention and preventive measures can help reduce the burden of cardiovascular disease (CVD) and improve the quality of life for police officers. Keeping

"prevention is better than cure" in focus, a joint discussion was held between authorities of our institute and the police department in Ahmedabad city. A detailed plan for preventive cardiac health check-ups was designed to screen all police personnel for high blood pressure, diabetes, lipid disorder, diet quality, Body Mass Index (BMI), physical inactivity, ECG & 2-D echocardiography to screen the current condition of heart and risk factor that leads to cardiovascular disease. This study aimed to compare the prevalence and predictors of cardiovascular risk factors between police personnel engaged in fieldwork and those engaged in office work.

Materials and methods

A cross-sectional study was performed during the health check-up camp of police personnel conducted at U.N. Mehta Institute of Cardiology and Research Centre (UNMICRC), Gujarat, India. After obtaining permission from the Institutional Ethical Committee of the institute, the study commenced. (EC/Approval/25/CARDIO/27/09/2022). All police personnel of zone – 4 of Ahmedabad city were invited to participate in the study as a part of the health screening camp from April 2023 to November 2023. The trained team of staff conducted the health check-up for police personnel which included a trained cardiac staff nurse, cardiac physiotherapist, trained lab technician, physician, cardiologist, and trained data entry operator. A total of 2380 police personnel attended preventive cardiac health check-ups. After obtaining consent from the study participants, a predesigned semi-structured proforma was used for data collection. The proforma included information regarding demographic characteristics, the department where he/she works, the post held, duration of service in the police, personality type, anthropometric parameters, history of addiction to tobacco chewing or smoking, history of any major illness such as diabetes, hypertension, any other surgery history, it also included information regarding the type of dietary intake, exercise, yoga or meditation and being involved in physical activity. The proforma was given to the police personnel for their personal information (Name, age, sex, address) was self-administered and it was

cross-checked. Blood samples of all participants were collected (after 14 hours overnight fasting) for serum triglyceride, low-density lipoprotein cholesterol (LDL-C), high-density lipoprotein cholesterol (HDL-C), and total cholesterol (TC), were estimated using enzymatic methods on an automated analyzer; fasting blood glucose (FBG) was also measured by enzymatic methods on an autoanalyzer. Dyslipidaemia was defined as TC $\geq$ 200 mg/dl, TG $\geq$ 150 mg/dl, or LDL-C $\geq$ 130 mg/dl, or HDL-C $<$ 40 mg/dl (for men) and HDL-C $<$ 50 (for women) [10,11,12]. Diabetes was defined as FBG $\geq$ 126 mg/dl [10,13]. Systolic blood pressure (SBP) and diastolic blood pressure (DBP) were measured using calibrated mercury sphygmomanometers. Hypertension in the cases who had high blood pressure was defined as systolic blood pressure $\geq$ 140 mmHg or diastolic blood pressure $\geq$ 90 mmHg [14]. Participants were classified into work profile groups based on official departmental records and primary duty assignment. Fieldwork personnel were those primarily deployed for patrol duties, law enforcement operations, public order management, and active community interaction (Group 1, n=1840). Office work personnel were those primarily assigned to administrative, clerical, or desk-based duties within police stations or headquarters. Classification was verified through departmental duty rosters (Group 2, n=540).

Statistical analysis: Data were analysed as range; mean $\pm$ standard deviation ($\pm$ SD), frequencies (number of cases), and relative frequencies (percentages) as appropriate. A comparison of parametric values between the two groups was performed using the independent sample t-test. Categorical variables were compared using the chi-square test. Logistic regression analysis was performed with work profile (Fieldwork=1, Office work=0) as the dependent variable. Variables significant in univariate analysis ($p < 0.10$) were entered into a multivariable model. Age and sex were included as mandatory covariates to adjust for baseline differences. Adjusted odds ratios (OR) with 95% confidence intervals (CI) were reported. A p -value < 0.05 was considered statistically significant. All statistical analysis was carried out using the IBM, SPSS (Statistical Package for the Social Science) program vs 26.

Results

The demographic details, prevalence of risk factors, working patterns, and lifestyle history are shown in Table-1. A total of 2380 police personnel attended preventive cardiac health check-ups and were included in our study. There were 2014 males and 366 females. The average age was 37.85 years (range: 20–60 years). The prevalence of hypertension was 9.4% and diabetes was 3.9%; newly detected hypertension and diabetes were 5.6% and 4.6%, respectively. Daily junk food consumption was seen in 50.12%, tobacco chewing in 15.2%, lack of regular physical exercise in 30.5%, and Type A personality in 19.3%.

Based on working patterns, we divided personnel into fieldwork (n=1840) and office work (n=540) groups. The fieldwork group had 1642 males and 198 females, while the office group had 372 males and 168 females. Females were more represented in the office group. Mean age was 38.2 years in the fieldwork group and 36.3 years in the office group.

Table-1: General characteristics of the study population (n=2380)

Variables	f (%)
Male	2014 (84.6)
Female	366 (15.4)
Clinical examination Mean $\pm$ SD	
Height (cm)	170 $\pm$ 8.72
Weight (kg)	73.41 $\pm$ 11.9
BMI (kg/m ²)	25.40 $\pm$ 3.82
Systolic blood pressure (mmHg)	127.17 $\pm$ 15.7
Diastolic blood pressure (mmHg)	82.33 $\pm$ 10.87
Risk factors f(%)	
Smoking	70 (2.9)
Tobacco	362 (15.2)
Inadequate sleep ($<$ 7 hrs/day)	42 (1.7)
Past history of diabetes	93 (3.9)
Past history of hypertension	224 (9.4)
Newly detected hypertension	135 (5.6)
Newly detected diabetes	110 (4.6)
Newly detected dyslipidaemia	21 (0.8)
Coronary artery disease	35 (1.4)
Hyperthyroidism	3 (0.1)
Hypothyroidism	17 (0.7)
Cerebrovascular disease	2 (0.08)
Kidney disease	3 (0.1)
Past history of covid	211 (8.8)

Type of work	f(%)	Baseline characteristics and blood investigations are compared in Table-2. Due to significant baseline differences (age and sex), multivariable logistic regression including age and sex as mandatory covariates was performed. Fasting blood glucose was comparable between groups. Systolic and diastolic blood pressure were higher in the fieldwork group (p<0.001). In lipid profile examination, cholesterol, LDL-C, total lipids, and total cholesterol/HDL ratio were significantly higher in the fieldwork group.
Fieldwork	1840 (77.3)	
Office work	540 (22.7)	
Duty hours (Mean ± SD)	10.3 ± 4.01	
Diet pattern	f(%)	
Vegetarian food	2020 (84.8)	
Non-vegetarian food	504 (21.1)	
Mixed diet	540 (22.6)	
Junk food daily	1193 (50.12)	
Lack of physical exercises	727 (30.5)	
Type A personality	460 (19.3)	
<i>f (%)= Frequency of different characteristics of the study population</i>		

Table-2: Baseline characteristics and blood investigations comparison between the groups according to work pattern

	Fieldwork group (N=1840)	Office work group (N=540)	P value
Male	1642 (89.2)	372 (68.8)	<0.0001
Age (years)	38.28 $\pm$ 8.44	36.39 $\pm$ 8.55	<0.001
Weight (kg)	74.12 $\pm$ 11.72	70.99 $\pm$ 12.60	<0.001
BMI	25.37 $\pm$ 3.75	25.31 $\pm$ 3.51	0.7353
Haemoglobin (g/dl)	14.22 $\pm$ 1.55	13.68 $\pm$ 1.82	<0.001
Blood Sugar (FBS) (mg/dL)	102.42 $\pm$ 33.89	100.21 $\pm$ 30.94	0.1761
S. creatinine (mg/dL)	0.96 $\pm$ 0.20	0.87 $\pm$ 0.18	<0.001
Cholesterol (Chol) (mg/dL)	183.51 $\pm$ 38.02	175.32 $\pm$ 39.43	<0.001
S.HDL Cholesterol (mg/dL)	38.6 $\pm$ 8.38	39.77 $\pm$ 8.85	0.0046
Total Chol / HDL Ratio (mg/dL)	4.92 $\pm$ 1.51	4.54 $\pm$ 1.27	<0.001
Triglyceride (mg/dL)	132.97 $\pm$ 98.94	126.82 $\pm$ 83.75	0.1901
VLDL (mg/dL)	26.59 $\pm$ 19.78	25.36 $\pm$ 16.75	0.1901
LDL (mg/dL)	118.27 $\pm$ 32.72	109.83 $\pm$ 32.99	<0.001
LDL/HDL Ratio (mg/dL)	3.50 $\pm$ 5.41	3.30 $\pm$ 3.34	0.4303
Total lipids (mg/dL)	649.36 $\pm$ 108.67	636.06 $\pm$ 102.16	0.0113
Systolic blood pressure (mmHg)	129.98 $\pm$ 15.89	125.90 $\pm$ 16.14	<0.001
Diastolic blood pressure (mmHg)	83.29 $\pm$ 10.64	81.78 $\pm$ 11.07	0.0041

S. creatinine= Serum creatinine; HDL= High-density lipoprotein; Total chol= Total cholesterol; VLDL= Very low-density lipoprotein; LDL= Low-density lipoprotein

Cardiovascular risk factors and lifestyle factors are shown in Table-3. Smoking and tobacco chewing were comparable between groups. Non-vegetarian and mixed food consumption were higher in the fieldwork group. Daily junk food consumption, and Type A personality were significantly higher in the fieldwork group. Regarding work patterns and

lifestyle characteristics (Table-3), shift duty was highly prevalent among the study population. However, the proportion of participants engaged in shift duty was found to be significantly higher in the field work group compared to the office work group (86.3% vs. 65.3%, $P < 0.0001$).

Table-3: Comparison of cardiovascular risk factors and lifestyle characteristics by work group

	Fieldwork (n=1840)	Office work (n=540)	P Value
Risk factors			
Diabetes mellitus (DM)	74 (4.02%)	19 (3.5%)	0.6860
Hypertension (HTN)	176 (9.5%)	48 (8.8%)	0.6969
Newly detected HTN	99 (5.3%)	36 (6.6%)	0.2901
Newly detected DM	92 (5%)	22 (4%)	0.3757
History of CAD	25 (1.3%)	10 (1.8%)	0.5262
Smoking	51 (2.7%)	19 (3.5%)	0.4483
Tobacco	280 (15.2%)	82 (15.1%)	0.9603
Inadequate sleep (<7 hrs/day)	32 (1.7%)	10 (1.8%)	0.9913
Thyroid disorder	14 (0.7%)	6 (1.1%)	0.6059
Cerebrovascular disease	1(0.05%)	1 (0.1%)	0.9378
Kidney diseases	3(0.01%)	0	0.8032
History of Covid-19	170 (9.2%)	41(7.5%)	0.2724
Diet pattern			
Vegetarian	1569 (85.2%)	451 (83.5%)	0.3516
Non-Vegetarian	354 (19.2%)	150 (27.7%)	<0.0001
Mixed	390 (21.1%)	150 (27.7%)	0.0016
Junk food consumption daily	1031 (56%)	162 (30%)	<0.001
Type-A personality	377 (20.4%)	83 (15.9%)	0.0097
Duty hours	10.31±4	10.75±4.3	0.0273
Lack of physical exercises	610 (33.1%)	117 (21.6%)	<0.0001

Table-4 presents univariate and multivariate logistic regression analyses identifying variables independently associated with belonging to the fieldwork group. After multivariable adjustment,

higher systolic blood pressure, daily junk food consumption, Type A personality traits, and lack of regular exercise remained independently associated with the fieldwork group.

Table-4: Univariate and multivariate logistic regression analysis showing factors independently associated with belonging to the fieldwork group (compared to office work)

	Univariate analysis			Multivariate analysis		
Clinical parameters	OR	95% CI	P VALUE	OR	95% CI	P VALUE
Cholesterol (mg/dL)	1.006	1.001-1.03	<0.001	0.99	0.98-1.001	0.134
HDL (mg/dL)	0.98	0.97-0.99	0.005	1.008	0.98-1.03	0.463
Cholesterol/HDL (mg/dL)	1.26	1.16-1.36	<0.001	1.16	0.96-1.4	0.120
Systolic pressure (mmHg)	1.02	1.01-1.023	<0.001	1.01	1.008-1.02	<0.001
Risk factors						
Junk food consumption daily	2.94	2.42-3.65	<0.001	2.94	2.39-3.62	<0.001
Type A personality	1.58	1.25-1.99	<0.001	1.52	1.21-1.92	<0.001
No exercises in daily routine	1.46	1.17-1.81	0.001	1.47	1.18-1.83	0.001

Adjusted for age and sex; Dependent variable: work profile (fieldwork=1, Office=0). Variables with $p < 0.10$ in univariate analysis were entered into the multivariable model

Discussion

A total of 2380 police personnel attended preventive cardiac health check-ups and were taken in this study. In our study, the prevalence of consumption of daily junk food is 50.12%, physical inactivity is 30%, and tobacco use is 15.2%. At baseline, the prevalence of known hypertension and newly detected hypertension was 9.4% and 5.6% respectively. The prevalence of known diabetes and newly detected diabetes was 3.9% and 4.6%. The prevalence of newly detected dyslipidaemia was 0.8%.

Our study shows that fieldwork personnel demonstrated a higher prevalence of adverse behavioural and metabolic risk factors compared to office personnel. Similar findings were reported by Shiozaki et al. [15], who examined job-related behavioural characteristics and coronary heart disease risk in Japanese male police officers. They found that field workers had significantly more coronary heart disease risk factors, with coronary-prone behaviour, age, social support, and walking hours being significant determinants. In our study, junk food consumption, lack of exercise, and Type A personality were more prevalent in the fieldwork group.

Zhang et al. [16] assessed metabolic syndrome among 10,348 Chinese police officers and found associations with older age, male sex, alcohol, and tobacco use. Chauhan et al. [17] studied 402 police personnel in Gwalior and reported hypertension prevalence of 67.9%, with 75.8% being newly diagnosed. In our study, known hypertension was 9.4% and newly detected hypertension 5.6%.

Sunil et al. [18] reported tobacco use of 23.5% and alcohol consumption of 28% among police in Karnataka, with 23% having diabetes, 26% hypertension, and 64.5% metabolic syndrome. Garbarino and Magnavita [19] followed 234 Italian police officers for 5 years and found work-related stress significantly associated with incident hypertriglyceridaemia (OR 7.9, 95% CI 1.3–48.0). Our findings are consistent with these studies, showing fieldwork personnel had higher dyslipidaemia and elevated systolic pressure, though these associations should be interpreted with caution due to baseline demographic differences. Our multivariate analysis identified

higher systolic blood pressure, daily junk food consumption, Type A personality, and lack of exercise as significantly associated with the fieldwork group.

Geethu and Jadhav [20] studied 400 Bengaluru police officers >40 years using the WHO/ISH risk chart and found significant associations between cardiovascular disease risk and age, marital status, education, family history, smoking, diabetes, hypertension, and blood pressure levels.

Fieldwork involves high-risk situations, emotional intensity, lack of control, long hours, public scrutiny, physical demands, and traumatic exposures – all contributing to greater stress than office work. These stressors impact cardiovascular health. Law enforcement agencies should prioritise officer well-being through stress management, health resources, and lifestyle promotion. Primary care physicians play a vital role through regular screening, early detection, and personalised interventions.

Conclusion

Fieldwork was associated with differences in several lifestyle characteristics and cardiovascular risk markers, particularly daily junk-food consumption, physical inactivity and systolic blood pressure. While causality cannot be inferred, these findings suggest the need for targeted preventive strategies, structured wellness programs, stress management initiatives, and periodic cardiovascular risk assessment tailored specifically to field-deployed police personnel.

Limitations

This study has several limitations. First, the cross-sectional design prevents causal inference between work profile and cardiovascular risk factors. Second, significant baseline differences between groups, particularly age and sex distribution, may have introduced residual confounding despite statistical adjustment. Third, classification into fieldwork and office groups was based on primary duty assignment and may not fully capture variations in workload intensity. Fourth, lifestyle variables such as diet and exercise were self-reported and may be subject to information bias.

Conflict of interest

The authors have no conflicts of interest associated with the material presented in this paper.

Funding Sources

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Acknowledgments

Special thanks to Dr. Kanan Desai D.C.P., Zone – IV for her support and for providing all the necessary documents to carry out this preventive cardiac health check-up camp. We would like to thank all the police personnel and police stations in-charge for their consent and cooperation in collecting the required information for this research work.

References

1. PAHO/WHO. Pan American Health Organization. Environmental and social determinants of health. 2022; Available from: <https://iris.paho.org/items/005f843c-bbeb-4fc5-b557-34770270c3ab>.
2. Violanti JM, Charles LE, McCanlies E, Hartley TA, Baughman P, Andrew ME, et al. Police stressors and health: a state-of-the-art review. *Policing*. 2017; **40**(4): 642-656. doi: 10.1108/PIJPSM-06-2016-0097.
3. World Health Organization. No communicable diseases: Risk factors. 2022; Available from: <https://www.who.int/data/gho/data/themes/topics/topic-details/GHO/ncd-risk-factors>.
4. Kaur P, Ramachandra Rao S, Venkatachalam R, Kangusamy B, Radhakrishnan E, Kaliaperumal K, et al. Risk factors for cardiovascular disease in rural South India: cohort study. *BMJ Open*. 2019; **9**(10): e029759. doi: 10.1136/bmjopen-2019-029759.
5. Ramakrishnan J, Majgi SM, Premarajan KC, Lakshminarayanan S, Thangaraj S, Chinnakali P. High prevalence of cardiovascular risk factors among policemen in Puducherry, South India. *J Cardiovasc Dis Res*. 2013; **4**(2): 112-5. doi: 10.1016/j.jcdr.2013.05.002.
6. GBD 2016 Risk Factors Collaborators. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990-2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet*. 2017; **390**(10100): 1345-1422. doi: 10.1016/S0140-6736(17)32649-1.
7. World Health Organization, South-East Asia India. Cardiovascular diseases in India. 2022; Available from: <https://www.who.int/india/health-topics/cardiovascular-diseases>.
8. Collins PA, Gibbs AC. Stress in police officers: a study of the origins, prevalence and severity of stress-related symptoms within a county police force. *Occup Med (Lond)*. 2003; **53**(4): 256-64. doi: 10.1093/occmed/kqg061.
9. Setti I, Argentero P. The influence of operational and organizational stressors on the well-being of municipal police officers. *Med Lav*. 2013; **104**(5): 368-79.
10. Joshi SR, Anjana RM, Deepa M, Pradeepa R, Bhansali A, Dhandania VK, et al. Prevalence of dyslipidemia in urban and rural India: the ICMR-INDIAB study. *PLoS One*. 2014; **9**(5): e96808. doi: 10.1371/journal.pone.0096808.
11. Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults. Executive summary of the third report of The National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, And Treatment of High Blood Cholesterol In Adults (Adult Treatment Panel III). *JAMA*. 2001; **285**(19): 2486-97. doi: 10.1001/jama.285.19.2486.
12. Ghazizadeh H, Fazilati M, Pasdar A, Avan A, Tayefi M, Ghasemi F, et al. Association of a Vascular Endothelial Growth Factor genetic variant with serum VEGF level in subjects with metabolic syndrome. *Gene*. 2017; **598**: 27-31. doi: 10.1016/j.gene.2016.10.034.
13. World Health Organization. Definition and diagnosis of diabetes mellitus and intermediate hyperglycemia: report of a WHO/IDF consultation. 2006. Available from: <https://www.who.int/publications/i/item/definition-and-diagnosis-of-diabetes-mellitus-and-intermediate-hyperglycaemia>.

14. McEvoy JW, McCarthy CP, Bruno RM, Brouwers S, Canavan MD, Ceconi C, et al. 2024 ESC Guidelines for the management of elevated blood pressure and hypertension. *Eur Heart J*. 2024; **45**(38): 3912-4018. doi: 10.1093/eurheartj/ehae178.
15. Shiozaki M, Miyai N, Morioka I, Utsumi M, Hattori S, Koike H, et al. Job stress and behavioral characteristics in relation to coronary heart disease risk among Japanese police officers. *Ind Health*. 2017; **55**(4): 369-380. doi: 10.2486/indhealth.2016-0179.
16. Zhang J, Liu Q, Long S, Guo C, Tan H. Prevalence of metabolic syndrome and its risk factors among 10,348 police officers in a large city of China: A cross-sectional study. *Medicine (Baltimore)*. 2019; **98**(40): e17306. doi: 10.1097/MD.00000000000017306.
17. Chauhan VS, Bansal M, Sharma V, Gupta R. Prevalence and risk factors of hypertension among police personnel of district Gwalior- a cross sectional study. *Indian J Community Med*. 2022; **47**(3): 379-385. doi: 10.4103/ijcm.ijcm_1154_21.
18. Sunil BN, BT PK. Health profile of Kolar police personnel: a cross sectional study. *J Med Biomedical Sci*. 2018; **8**(3): 85-92.
19. Garbarino S, Magnavita N. Work stress and metabolic syndrome in police officers. A prospective study. *PLoS One*. 2015; **10**(12): e0144318. doi: 10.1371/journal.pone.0144318.
20. S G, Jadhav J, Ts R. Cardiovascular disorder risk assessment among police personnel in Bengaluru City, India, using World Health Organization/International Society of Hypertension Risk Prediction Chart. *Cureus*. 2023; **15**(11): e48378. doi: 10.7759/cureus.48378.

Cite this article as:

Vyas P, Parmar M, Pandya H, Chaurasia S, Chaudhary R, Kanala R. Association between work profiles and their impact on cardiovascular risk factors in police community. *IMC J Med Sci*. 2026; 20(2):002.

DOI: <https://doi.org/10.55010/imcims.20.011>