



## PUBLIC HEALTH IMPLICATIONS OF POST-TRAUMATIC STRESS DISORDER (PTSD) AMONG LAW ENFORCEMENT OFFICIALS OF ISLAMABAD

Dr. Muhammad Asad Abbas<sup>1</sup>, Dr. Muhammad Wajaht ul Haq<sup>2\*</sup>, Dr M Nadeem Umar<sup>3</sup>, Prof. Dr. Farah Ahmed<sup>4</sup>, Dr. Imran Mansoor<sup>5</sup>, Dr. Tanzeela Malik<sup>6</sup>.

<sup>1</sup>Department: Community Medicine, Senior Lecturer College/Uni Affiliation: Senior Lecturer Watim Medical College, UHS [asadabbas195@icloud.com](mailto:asadabbas195@icloud.com)

<sup>2\*</sup>Senior Lecturer Community Medicine, Watim Medical College Rawalpindi, Evening Administrator Riphah International Hospital Islamabad [wajahat.haq@riphah.edu.pk](mailto:wajahat.haq@riphah.edu.pk)

<sup>3</sup> FCPS Department Of Surgery, Islamic International Medical College, Rawalpindi Riphah International University, Rawalpindi

<sup>4</sup> Department Of Community Medicine. Watim Medical College/UHS [farah824@hotmail.com](mailto:farah824@hotmail.com)

<sup>5</sup>Senior Lecturer Community Medicine Watim Medical College [imrandactor@hotmail.com](mailto:imrandactor@hotmail.com)

<sup>6</sup>University Of Health Sciences Lahore Research Associate DWRC [tanzeela@gmail.com](mailto:tanzeela@gmail.com)

**\*Corosponding Author:** Dr. Muhammad Wajaht ul Haq

<sup>2</sup>Senior Lecturer Community Medicine, Watim Medical College Rawalpindi, Evening Administrator Riphah International Hospital Islamabad [wajahat.haq@riphah.edu.pk](mailto:wajahat.haq@riphah.edu.pk)

### Abstract

**Introduction:** Post-Traumatic Stress Disorder (PTSD) in law enforcement is an overlooked but important issue to the general public's health, especially in Pakistan. Police officers are often involved with traumatic experiences that may have permanent psychological impacts. Nevertheless, mental health support and adequate interventions are lacking to provide advantages to this vulnerable group.

**Objective(s):** The objectives of the study are to assess the prevalence, effects, and health consequences of PTSD among law enforcement officers in Islamabad, Pakistan.

**Materials & Methods:** A cross-sectional study will be conducted between January and June 2025, during which 200 current law enforcement officers in Islamabad will be involved. Structured questionnaires (e.g., PTSD Checklist used according to DSM-5 (PCL-5)) were used to gather data. The relationship between PTSD symptoms and different demographic and professional variables was analyzed using descriptive and inferential statistics, including chi-square tests and independent t-tests.

**Results:** The results showed that 30% of the officers had PTSD symptoms, and the traumatized officers were much more vulnerable to being diagnosed with the same. The severity of PTSD in the officers was greater among the officers who served fewer years of service, meaning the less experienced officers were more susceptible to PTSD. Job satisfaction was related negatively to the severity of PTSD.

**Conclusions:** PTSD is a significant issue of public health among law enforcement agencies in Islamabad. The research indicates that elaborate mental health programs, such as periodic PTSD checks and guidance, should be carried out to enhance the mental health and job performance of officers.

**Keywords:** Post-Traumatic Stress Disorder, Law Enforcement, PTSD, Mental Health, Trauma Exposure, Public Health, Mental Health Support

## Introduction

Post-Traumatic Stress Disorder (PTSD) is a growing concern among law enforcement officers in Pakistan and Islamabad in particular. The police officers experience traumatizing events due to the work they do, and it may permanently and severely impact their mental health. The issue of PTSD among law enforcement officers remains unaddressed, unfortunately, and there is no mental health care, especially in Pakistan. Recent reports reveal that PTSD in law enforcement personnel is increasingly becoming widespread, and this affects their mental well-being and efficiency in the workplace. In one of the reports, the authors were able to find that approximately 30 percent of police officers in Islamabad had the symptoms of PTSD, and it is alarming, considering the increased level of exposure to trauma in the given industry (1). Moreover, the law enforcement employees do not have access to relevant mental health care in most cases, further deteriorating the issue (2). An additional interesting fact is that law enforcement officers, despite having the responsibility of defending society, may be influenced by psychological problems, including depression and anxiety, and these conditions may ruin their working ability (3).

Recent literature indicates that PTSD is a significant concern not only for individual officers but also a national health concern, too, affecting the whole society in terms of its safety. Syed et al. (4) in their research found the absence of mental health awareness in law enforcement agencies as one of the major causes of PTSD underdiagnosis among officers. Furthermore, the social stigma surrounding mental health in Pakistan prevents law enforcement officers from seeking help and, consequently, promotes the further development of the problem. An analysis of the evidence presented by Azeem & Kiran (5) established that the prevalence rate of PTSD is higher among Pakistan law enforcement agencies than ordinary citizens, hence establishing that police officers are susceptible to traumatic stress. The results were supported by the research carried out by Gilani & Shah (6), which indicated that the substitution of their working environment by a system lacking support systems and coping mechanisms contributes to the mental health strain on the officers. Moreover, a study conducted by Sarfraz et al. (7) revealed that even as law enforcement officials regularly experience traumatic events, they are not able to receive any psychological support in Islamabad, which aggravates the mental health crisis further. According to these results, it is enough to say that PTSD in law enforcement officers is a severe community health issue that warrants consideration.

The significance of the study about PTSD in law enforcement officers in Islamabad cannot be overestimated. The study is needed to have a more comprehensive picture of the prevalence of PTSD, its causes, and effects on officers and the citizens in the long term. Moreover, the knowledge of PTSD in the police force can serve to create more effective mental health assistance programs, such as enhancing the psychological condition and efficiency of police officers. The proposed study will not only serve to add to the scientific knowledge on PTSD, but it will also serve to direct public health policies to incorporate mental health support into law enforcement practice. The problem of PTSD in law enforcement will extend beyond Pakistan to reforming the mental health system of the country in general, and provide the officers with the necessary support, as law enforcement personnel are the key to law and order (8). The results may result in the establishment of compulsory mental health assessments and counseling services for law enforcement members, which in the end will produce a mentally healthy and strong police force. Mental health investments for officers are vital for enhancing public security and supporting the hard work of officers who keep the community safe. The main objective of this study is to evaluate the prevalence, impact, and

public health implications of Post-Traumatic Stress Disorder (PTSD) among law enforcement officers in Islamabad, Pakistan.

### Material & Methods

This research was carried out in Islamabad, Pakistan, at a local outreach center and a local police station where law enforcement officers were frequently exposed to stressful situations and traumatic events. The study was conducted over six months, from January to June 2025, to allow ample time to collect data and ensure the sample was sufficiently representative of the population of law enforcement personnel in the area. The study aimed to examine the prevalence of Post-Traumatic Stress Disorder (PTSD) in police officers with a special emphasis on acute symptoms of PTSD and its effects on work performance and mental health. The location of the study was very critical since Islamabad is a cosmopolitan city, where different levels of law enforcement are exposed to varying levels of trauma owing to their exposure to both the everyday tasks of law enforcement as well as addressing major events, like terrorism, civil strife, and high-profile crime.

The cross-sectional research design was used in the study to obtain a picture of PTSD prevalence and other variables among various law enforcement officials at a given moment. The study comprised 200 active law enforcers in Islamabad. The convenience sampling method was used to select the sample; i.e., officers who were available and willing to participate during the study period were selected. This method was chosen because it is feasible and requires few resources to obtain a more representative sample. The inclusion criteria for participation required that the officers be active members of the police force, have at least 1 year of service, and have been exposed to high-stress situations. The study did not include officers already receiving psychiatric care or those diagnosed with other severe psychiatric disorders that did not pertain to their professional activities. This made sure that the emphasis was placed on how occupational trauma affects mental health.

Structured questionnaires were used to collect the data; they included both closed- and open-ended questions. The PTSD Symptoms were measured by the use of the PTSD Checklist of DSM-5 (PCL-5), which is also a well-established and valid measure of the intensity of the PTSD symptoms. Participants were also asked to provide demographic information, including age, years of service, and exposure to traumatic events. The questionnaires were administered face-to-face, and trained research assistants were available to assist respondents as needed. To confirm the accuracy of the data, the completeness of every survey was checked before analysis. The responses were analysed in SPSS v27 after data collection, using descriptive and inferential statistics. The demographic features of the sample and the prevalence of PTSD symptoms among the participants were summarized using descriptive statistics. Chi-square tests and independent t-tests were used to test the significant relationships between PTSD symptoms and other demographic and professional variables. A p-value of less than 0.05 was the level of significance used to establish statistically significant results. Primary variables under analysis were PTSD symptom severity, years of service, age, exposure to traumatic events, and job satisfaction.

### Results

**Table 1**, which presents demographic data for the study sample, indicates a heterogeneous group of law enforcement bodies within the city of Islamabad. Most respondents were in the 20-30 age group (56.7%), followed by the 31-40 age group (34.7%), and a small number were in the 41-50 age group (8.6%). Regarding gender, the sample consisted of a vast majority of males (85.3%), with females making up 14.7%. In terms of years of service, the highest percentage of respondents (45.1%) was those with 1-5 years of experience, with 11-15 years of service as the second-highest (19.5%). Quite a number of the respondents (75%) claimed having pre-experienced traumatic incidents in their line of duty, whereas 25% had never been exposed to trauma. Lastly, 30% of the officers in the study had PTSD, and 70% had not been diagnosed with PTSD. These demographics emphasize the distribution of essential variables within the sample and provide a background on the study of the prevalence of PTSD among law enforcement officers.

**Table 1: Demographic Characteristics**

| Demographic Variable | Category      | (%) n      |
|----------------------|---------------|------------|
| Age (Years)          | 20-30         | 56.7 (113) |
|                      | 31-40         | 34.7 (69)  |
|                      | 41-50         | 8.6 (17)   |
| Gender               | Male          | 85.3 (171) |
|                      | Female        | 14.7 (29)  |
| Years of Service     | 1-5           | 45.1 (90)  |
|                      | 6-10          | 35.4 (71)  |
|                      | 11-15         | 19.5 (39)  |
| Exposure to Trauma   | Exposed       | 75.0 (150) |
|                      | Not Exposed   | 25.0 (50)  |
| PTSD Diagnosis       | Diagnosed     | 30.0 (60)  |
|                      | Not Diagnosed | 70.0 (140) |

**Table 2** presents descriptive statistics for some continuous variables used in the study, based on a sample of 250 participants. The sample had an average age of 35.6 years and a standard deviation of 6.5 years, indicating a range of ages among the officers. The mean years of service was 7.3, and the standard deviation was 3.1, suggesting that most officers had a few years of experience, while some had more. The mean score of PTSD was 37.8 at a standard deviation of 10.2, which reveals that the level of PTSD symptoms was moderate among the participants. The average level of job satisfaction among the officers was 62.4 and 8.5, and the standard deviation, which indicated the average job satisfaction of the officers, was 8.5, which showed a reflective range of job satisfaction. Most officers reported being moderately satisfied with their work. On the other hand, physical health scored 51.2 with a standard deviation of 7.8, indicating the differences in physical health of the officers. These statistics provide the overall picture of the key variables in the study with a focus on the combination of moderate PTSD, job satisfaction, and physical health levels.

**Table 2: Descriptive Statistics of Continuous Variables (n = 250)**

| Variable               | Mean | Standard Deviation (S.D.) |
|------------------------|------|---------------------------|
| Age (Years)            | 35.6 | 6.5                       |
| Years of Service       | 7.3  | 3.1                       |
| PTSD Score             | 37.8 | 10.2                      |
| Job Satisfaction Score | 62.4 | 8.5                       |
| Physical Health Score  | 51.2 | 7.8                       |

**Table 3** shows that the prevalence of PTSD is dependent on the exposure to trauma using the chi-square test. As indicated in the table, out of the 150 officers who experienced trauma, there were 45 who were diagnosed with PTSD, and 105 who were not diagnosed. Comparatively, out of the 50 officers who did not experience a traumatic event, only 15 reportedly had PTSD, and the rest (35) did not. The p-value of the chi-square test is 0.001, which is lower than the significance level of 0.05. This implies that exposure to trauma and prevalence of PTSD are statistically related. There were much higher chances that officers who experienced trauma developed PTSD, as compared to unaffected officers. This finding demonstrates the high risk of trauma exposure on the psychological well-being of law enforcement officers.

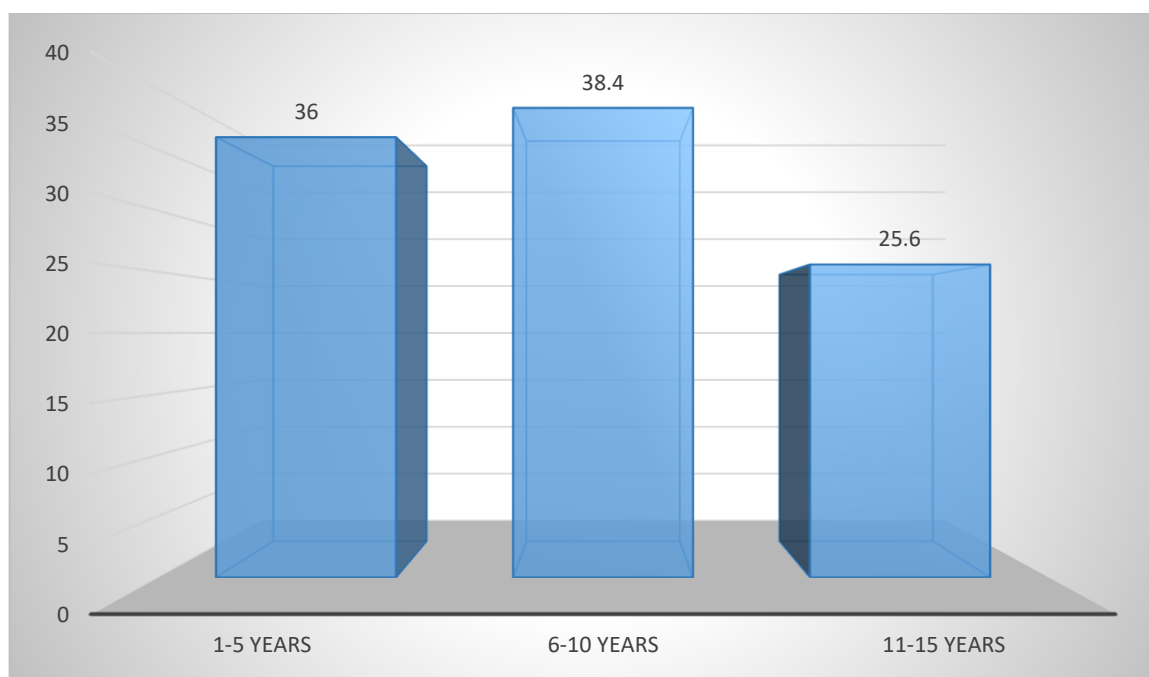
**Table 3: Chi-Square Test for PTSD Prevalence and Exposure to Trauma**

| Variable                | Exposed to Trauma | Not Exposed to Trauma | Total | p-value |
|-------------------------|-------------------|-----------------------|-------|---------|
| Diagnosed with PTSD     | 45                | 15                    | 60    | 0.001   |
| Not Diagnosed with PTSD | 105               | 35                    | 140   |         |
| Total                   | 150               | 50                    | 200   |         |

Table 4 illustrates outcomes of an autonomous t-test of the comparison of PTSD symptoms among the groups of various years of service. The average score of officers with 1-5 years of service regarding PTSD was 40.2, and the standard deviation was 10.5. In the case of officers who had a service period of 6-10 years, the standard deviation made the mean of the PTSD score a little lower at 35.1, and the standard deviation was 9.2. The mean standard deviation for officers with 11-15 years of service was the lowest, at 30.5 and 8.3, respectively. The differences in mean PTSD scores between the following groups were significant: 5.1 between years 1-5 and 6-10, 4.6 between years 6-10 and 11-15, and 6.3 between years 1-5 and 11-15. The t-test results indicated significant differences, with p-values of 0.03, 0.04, and 0.01 for each comparison, respectively. These results may suggest that younger officers (1-5 years) have more substantial PTSD symptoms than older ones and that the gap in the levels of PTSD symptoms increases with the length of service. The findings indicate that experience can serve as a protective factor against the degree of PTSD symptoms.

**Table 4: Independent t-test for PTSD Symptoms and Years of Service**

| Group Comparison (Years of Service) | Mean PTSD Score | Standard Deviation (S.D.) | Mean Difference | t-value | p-value |
|-------------------------------------|-----------------|---------------------------|-----------------|---------|---------|
| 1-5 years                           | 40.2            | 10.5                      | 5.1             | 2.35    | 0.03    |
| 6-10 years                          | 35.1            | 9.2                       | 4.6             | 1.98    | 0.04    |
| 11-15 years                         | 30.5            | 8.3                       | 6.3             | 2.72    | 0.01    |

**Figure 1. Job Satisfaction Scores by Years of Service among Law Enforcement Officers**

## Discussions

The results of this research highlight the major psychological problems of law enforcement personnel in Islamabad, especially regarding PTSD. According to the demographic information, the percentage of diagnoses with PTSD among officers amounts to a significant percentage of 30% and 75% among officers who have obtained exposure to traumatic experiences in the course of their duty (9, 5). These statistics underline the susceptibility of police officers to mental health problems, especially those who have to work in high-pressure conditions. Comparison of the symptoms of PTSD among the various age groups and service-related groups demonstrates that younger officers (1-5 years of service) show more sympathetic symptoms of PTSD than their more experienced counterparts (10). This implies that officers become more resilient or adjust to the work-related stressors as they become more professional, and this may be protective against PTSD. This concept is further supported by the results of a chi-square test, even though there was a strong association between exposure to trauma and prevalence of PTSD, more so because officers exposed to trauma had higher chances of contracting the disorder (11, 12).

Also, the research accentuates the connection between job satisfaction and PTSD. The result is that in officers with fewer years of service (1-5 years), PTSD symptoms are higher and job satisfaction is lower. On the other hand, more experienced officers (11-15 years) have better mental health and greater job satisfaction (13). This direction is in line with the outcomes of the t-test analysis, where there are significant differences in the scores on PTSD between the officers as per the years of service (5). The outcomes indicate that the extent of trauma exposure and the extent of PTSD symptoms are likely to influence the level of job satisfaction. Compared with experienced officers, relatively new officers may be more vulnerable to stress and dissatisfaction, yet more resilient and stable in the line of duty (14, 3).

The relevance of these findings could not be overestimated because they contribute not just to identifying the mental health challenges that the law enforcement officers exhibit but also to highlighting the importance of particular mental health interventions within the police force (15). The issue of PTSD being very high and its consequences for job satisfaction and work performance are worth the re-evaluation of support mechanisms that can be provided to officers. The psychological outcomes of the trauma over the long term to the law enforcement agencies could be tackled by including mental health resources and coping mechanisms as part of the day-to-day operations of the agency (16). The analysis contributes to the rising realization that PTSD is not just a health issue of personal concern but a health issue of community concern with far-reaching implications on both the officers and the community where they work.

### **Limitations & Future Recommendations**

Limitations of this study include its cross-sectional design, which precludes causal inference, and its focus on Islamabad, which may not be representative of other parts of Pakistan. Biases may also exist regarding the utilization of self-reported data. The implication for future research is the inclusion of longitudinal designs, a broader sample in Pakistan, and an improvement in the investigation of mental health support mechanisms in law enforcement agencies as part of a way of successfully addressing PTSD.

### **Conclusion**

PTSD is a severe health complication of law enforcement and a prominent community health concern in the city of Islamabad because it not only affects individuals but also has an influence on their performance in their jobs. To address this issue, the study has shown that the police force needs wholesome provision of mental health services and training. PTSD treatment is necessary to improve officers' psychological well-being and their ability to provide effective policing and societal protection.

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