

## Original Research Article

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# Prevalence of stress among police worker: a cross-sectional study

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## ABSTRACT

**Background:** Globally, police work is considered to be one of the stressful occupations. They deal on a regular basis with an assortment of unique situations and stressors. Long working hours, irregular eating habits, shift duties and disturbed personal life produces stress in the police officer's life. Aims of the study were to assess the prevalence of stress in police worker and to see the association of stress with different variable.

**Methods:** This cross-sectional observational study conducted on 245 police personal working at provincial armed constabulary (PAC), Sitapur. After informed consent, demographic data of individual such as age, duration of service, nature of duties, types of foods were recorded. Anthropometric parameters were measured using standardized techniques. Stresses of subjects were recorded through pre structured questionnaire. Available data analyze by using chi-square test to see significance of association with different variables.

**Results:** In this study mean age of individual was  $40.34 \pm 8.23$  and mean duration of service was  $23.29 \pm 8.49$ . Majority (95.92%) of police worker were involved in shift duty and only 4.08 percent of individual involved in office work. 31.84% of subjects were having mild stress, 16.73% were having moderate and only 0.41% were having severe stress. Association of stress with duration of service or nature of job was not statistically significant.

**Conclusions:** Stress level is high among police personnel. Different associated factor related to stress like faulty food habits and shift work need implementation of regular counselling and stress management program can help to reduce their stress.

**Keywords:** Police personnel, Shift work, Stress

## INTRODUCTION

Globally, police work is considered to be one of the stressful occupations. Police are at high risk of developing work related stress.<sup>1</sup> The police are the law enforcement personnel. They deal on a regular basis with an assortment of unique situations and stressors. Increased demands of work impinging upon home life, lack of consultation and communication with the higher authorities in the organization, lack of control over workload and inadequate support have been identified as the potential factors responsible for the stress in the

policemen.<sup>2,3</sup> The police are trained in policing, but not about how to maintain their mental and physical well-being. Working throughout the day in such an atmosphere produces adverse psychological effects. Moreover long working hours, irregular eating habits, sleepless nights, shift duties and disturbed personal life produces stress in the police officer's life and they become vulnerable to various disorders.<sup>4</sup> A recent study showed that majority of policemen (88.89%) had moderate level of stress. Stress score was significantly high among overweight, diabetes, hypertensive, and depressed policemen.<sup>5</sup> Police personnel mostly engaged in field duties and perform

rotating shift duty. Shift work may be directly related to increased risk for CVD due to circadian disturbance or misalignment between work time and an individual's internal circadian system<sup>6</sup>, or indirectly related to CVD through several pathways such as work-related psychological and behavioral disorders.<sup>6,7</sup> Spielberger et al classified police stressors into three categories: administrative and professional pressures, physical and psychological dangers, and lack of support within and outside the police organization.<sup>8</sup> The frequency of these stressors may be dependent on many factors including their work shift, police rank, and duty location, and may fluctuate throughout the year.

At a global level, very few studies have been conducted to assess the level of stress among police personnel. Therefore police personnel were selected as study subjects to assess the burden of stress among them, its associated factor which can help to alleviate their work related stress, improve work performance and maintain healthy life

#### **Aims and objective**

To assess the prevalence of stress of stress among police personnel and to see the association of stress with different variables.

#### **METHODS**

This cross-sectional observational study conducted on 245 police employee working at provincial armed constabulary (PAC), Sitapur, Uttar Pradesh from October 2016 to April 2017. Those individual who have completed 10 years of services included in this study. After getting written informed permission from higher authority, study subjects explained in detail the nature of study and assure the confidentiality of recorded data. Socio-demographic data of subjects such as age, duration of service, nature of duties, types of foods were recorded. Anthropometric parameters were also measured using standardized techniques.<sup>9,10</sup> After recording demographic data, subjects were asked to fill a pretested semi structured questionnaire. Work related stress was measured by using operational police stress questionnaire and organizational police stress questionnaire, each having 20 items. Each subject was asked to rate how stressful each item has been for him and how they handle the situation, on a seven-point Likert scale ranging from "not at all stressful" (score: 1-3), "moderately stressful" (score: 4-6), and "very stressful" (score: 7).

#### **Statistical analysis**

Available data secured in widespread excel data sheet and analyzed by using SPSS software 16.0 version. Obtained result was expressed as percentage and mean with standard deviation (SD). Chi square test was used to see the significance of association between existing variables.

Association was considered statistically significant at p values of <0.005.

#### **RESULTS**

Socio-demographic characteristic of the study subject showed that 55.1% of subjects were in the age group of 30 to 40 years, 29.39% were in 41 to 50 years age group and rest 11.43% were in 51 to 60 years age group. Majority (95.92%) of subject were engaged in field duty and only 4.08% of subject performing office duty. Classified result of duration of service showed that 62.85% of subjects having less than 10 years' experience, 25.72% of subjects having between 11 to 20 years' experience and rest 11.43% of subjects were having 21 to 30 years of experience (Table 1).

**Table 1: Socio-demographic characteristic of subject.**

		Number (%)	Mean	SD
<b>Nature of Job</b>	Office	10 (4.08)	4.08	
	Field	235 (95.92)	95.92	
<b>Age of subjects (yrs)</b>	30-40	135 (55.1)		
	41-50	72 (29.39)	40.34	8.34
	51-60	38 (15.51)		
	≤10	154 (62.85)		
<b>Duration of service (yrs)</b>	11-20	63 (25.72)	23.29	8.49
	21-30	28 (11.43)		
<b>Food habit</b>	Vegetarian	78		
	Non vegetarian	167	-	-

If we see the result of stress burden of subjects, it shows that 31.84% of subjects having mild stress, 16.73% of subjects having moderate stress and only 0.41% of subjects were suffering from severe degree of stress (Table 2).

**Table 2: Stress level of subjects.**

Stress	Number (%)	Mean (SD)
<b>Normal</b>	125 (51.02)	
<b>Mild</b>	78 (31.84)	
<b>Moderate</b>	41 (16.73)	18.56 (4.51)
<b>Severe</b>	1 (0.41)	
<b>Total</b>	245	

If we see association of stress with age of subjects, it showed that 47.37% of subjects in 51 to 60 years age group were having mild degree of stress and only 2.63% of subjects having severe stress. In 41 to 50 years age group 36.11% of subjects were having mild stress and 15.28% of subjects having moderate degree of stress. In 30 to 40 years age group subjects 25.19% of subjects having mild stress and 18.52% of subjects having moderate degree of stress and association was not significant (Table 3).

**Table 3: Association of stress with age of subjects.**

Age of subject (years)	Stress				Total (%)	Chi square value
	Normal (%)	Mild (%)	Moderate (%)	Severe (%)		
<b>30-40</b>	76 (56.3)	34 (25.19)	25 (18.52)	(0)	135 (100%)	
<b>41-50</b>	35 (48.61)	26 (36.11)	11 (15.28)	(0)	72 (100%)	7.82
<b>51-60</b>	14 (36.84)	18 (47.37)	5 (13.16)	1 (2.63)	38 (100%)	p=0.09 NS
<b>Total</b>	125 (51.02)	78 (31.84)	41 (16.73)	1 (0.41)	245 (100%)	

**Table 4: Association of stress with nature of job subjects.**

Nature of job	Stress				Total	Chi square value
	Normal (%)	Mild (%)	Moderate (%)	Severe (%)		
<b>Field</b>	117 (49.79)	76 (32.34)	41 (17.45)	1 (0.43)	235 (100)	
<b>Office</b>	8 (80)	2 (20)	0 (0)	(0)	10 (100)	3.96
<b>Total</b>	125 (51.02)	78 (31.84)	41 (16.73)	1 (0.41)	245 (100)	P=0.14 NS

Association of stress with nature of job showed that 32.34% of subjects suffered from mild stress and 17.45% of subjects having moderate degree of stress and only 0.43% of subjects were suffered from severe degree of stress. Subjects who were engaged in office duty 20% were suffered from mild stress and association of stress with nature of job was not significant (Table 4).

## DISCUSSION

Our study result showed that 31.84% of subjects having mild stress and 16.73% of subject were suffering from moderate degree of stress. This high level of perceived stress among police personnel need for certain strategies to reduce its level. Other Indian studies also showed high stress level among police personnel.<sup>5,11</sup> A study done on Malaysian police found the overall prevalence of stress as 38.8%.<sup>12</sup> Sources of stress in policing may be classified into two general categories (Shane, 2010): those arising from "job content" which include work schedules, shift work, long-work hours, overtime and court work, and traumatic events and threats to physical and psychological health; and those arising from "job context" also called organizational stressors, which refer to characteristics of the organization and behaviour of the people that produce stress (e.g. bureaucracy and co-worker relations).<sup>13</sup> Occupational stress among police personnel can lead to impaired psychological well-being and physical health.<sup>14</sup> Police personnel in India can be broadly categorized into constables, inspectors, and officers. Belonging to the lowest strata, the constables obey commands of inspectors/sub inspectors and impart assigned duties as part of police work.<sup>15</sup> Police personnel officers have more duty on their head quarter and have office work but non officers have various field duties like bandobast duty, traffic control, VIP duties, flood duty etc.<sup>16</sup>

In our study majority (95.925) of police personnel were performing field duty and only 4.08% of subjects performing office duty. Most of the field duty performed

by constable or head constables. Among constables, various factors such as inadequate housing/security of the family, irregular working hours, inadequate provision for children's education, inconsistent policies regarding evaluation, accountability and transfer, insufficient personal time, lack of recognition for good work, working overtime, inadequate salary, lack of holidays, lack of opportunity for advancement, and delayed promotion were contributing to significant levels of psychological stress.<sup>14,17</sup> Those constables who were performing shift duty regularly facing more stress and having depressive tendency. "There also is the problem of physiological disruption of circadian rhythms. Being awake all night while one should be sleeping can affect judgment and decision making. The combination of these two has a double-barreled stress effect." Vivek et al stated in his study that police officers working afternoon and night shifts reported a higher number of work-related stressors compared to those working on day shift.<sup>18</sup> A 2012 NIJ-supported study on shift work and fatigue concluded that shift work not only increases stress but also leads to sleep problems, obesity, heart problems, sleep apnea, and an increase in the number of officers who snore.<sup>19</sup>

Other Indian studies on the occupational health problems among constables revealed that inadequate salaries/facilities, round the clock duty, no time for family, negative interaction with other police staff, harassment, role ambiguity, and negative public image are some of the factors leading to psychological stress and burn out.<sup>17,20,21</sup> Observed relation of stress with duration of service showed no statistical significant association. In our study subjects mean duration of service were  $23.29 \pm 8.34$ . Our study result were consistent with finding of Vivek et al who also did not find any statistically significant association between years of experience and stress.<sup>18</sup> Although policemen join the police department in good health, they retire with some stress related disorders.<sup>22</sup> Police personnel have different life style from

other occupations. They have to work in the field many times so they used to eat easily accessible street food, which is more oily, having irregular sleep, psychological exhaustion and consumption of high calorie foods due to accessibility and low cost.<sup>16</sup> Such frequent habits lead to develop obesity and other metabolic disorders as in our study also 17.99% of obese subjects were suffering from moderate degree of stress. Schulte et al in his study revealed that overweight and obesity are related to job stress, shift work and long work hours.<sup>23</sup>

## CONCLUSION

Stress level is high among police personnel. Different associated factor related to stress like faulty food habits and shift work need implementation of regular counselling regarding healthy food habits and stress management program can help to reduce their stress. Health checkup should be made mandatory to avoid their negligent behaviour and early detection of lifestyle-related disorder.

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