

# Job Stress Impact on Health: An Empirical Study on Police Personnel of Bhopal City (M.P.)

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## Abstract

*Stress is an inevitable and unavoidable. Work is central part of human life. Work performs an important role in individuals' social lives, providing the support of a regular income, opportunities and personal growth, social identity and self-esteem, but can have consequences for the worker's health. Many people not aware of occupational stress that occur in the organization and they did not care about the occupational stress. They assume that the occupational stress will only affect their performance of work but also affect their health like heart attack, migraine that can lead to death. If people not were aware about job stress, it will become worst such as suicide (Yahaya, 2010).*

*Stress manifests in various forms of emotional disorders and gets its reflection in the form of anxiety, depression, helplessness, hopelessness and anger (Singh and Singh, 1992). With the slightest provocation the people having distress prone personality patterns are easily induced to anger and anxiety and become unable to relax. The ten most general claims accepted by medical science are for the treatment of stress related illnesses (i.e. high blood pressure, high cholesterol, asthma, depression, menopause, type 1 diabetes, epilepsy, type 2 diabetes, ischemic heart diseases and gastro-oesophageal reflux). Furthermore, 75% of the visits to primary health care facilities are stress-related (Van der Merwe, 2005).*

*In this paper study have been conducted to find out the occupational stress impact on health on police personnel's. There is correlation analysis has been done between different variables like: occupation stress with parameter of job hierarchy, nature of job and different health issues faced by the police personnel due to occupational stress. Lastly results, discussion and suggestion have been drawn followed by the conclusion.*

**Key Words:** Occupational Stress, Police Personnel, Stress, Health, job hierarchy

## I. INTRODUCTION AND LITRECTURE REVIEW

Stress is an inevitable and unavoidable reality of life. Stress has always been present and will continue to be present, irrespective across gender, age, social status, economic background as well as across varied profession. In the work context depending on the nature of work some employees may feel 'extremely' stressed others may experience moderate amount of stress while the level of stress some employees may be low across. In the organizational context the fast paced changes emanating from the altering work responsibility, procedures, policies and expectations has made the jobs more complex and highly demanding. In such a competitive work environment, one of the most common side effects of work life is stress. In recent years worldwide organizations are downsizing, outsourcing and restructuring, leaving workers feeling stressed, insecure, misunderstood, undervalued and alienated. With fewer staff doing more work in nearly every industry, employees experience exhaustion both mentally and physically (Wise, 2001).

### A. Concept of Stress

Stress is a fact of life and is inevitable in this age of intense competition, increased expectations and innumerable other activators of stress. The word stress is derived from the Latin word 'Stringi' which means, 'to be drawn tight' The word 'stress' is defined by the Oxford Dictionary as the 'state of affairs involving demand on physical or mental energy'. From a medical standpoint, stress is a disturbance in the body's homeostasis. From an Ayurvedic standpoint, stress is an obstruction in the flow of natural intelligence. Stress can be studied under a stimulus-based paradigm, where certain conditions (also called 'stressors' i.e., workload, heat and cold, time pressure) are stressful/uncomfortable to an individual (Svenningsson, Chergui, & Rachleff et al., 2006).

### B. Concept of Occupational Stress

Work is central part of human life. Work performs an important role in individuals' social lives, providing the support of a regular income, opportunities

and personal growth, social identity and self-esteem, but can have consequences for the worker's health. Work provides with an inner creative joy. It provides money for life hood. It makes people life meaningful and peaceful. Rewarding work is an important and positive part of people's life. A healthy occupation is likely to be one where the pressures on employees are appropriate in relation to their abilities and resources, to the amount of control they have over their work, and to the support they receive from people who matter to them. As health is not merely the absence of disease or infirmity but a positive state of complete physical, mental and social well-being (WHO, 1986), a healthy working environment is one in which there is not only an absence of harmful conditions but an abundance of health-promoting ones.

### **C. Concept of Health**

The Constitution of the World Health Organization, which came into force on April 7, 1948, defined health 'as a state of complete physical, mental and social well-being.' Health is not something that one possesses as a commodity, but connotes rather a way of functioning within one's environment (work, recreation, and living). The work environment constitutes an important part of man's total environment, so health to a large extent is affected by work conditions. Here are ongoing research efforts to establish the physiologic pathways through which stress may produce disease. Neurologic, immunologic, and endocrine mediators of disease have been established. The hypothalamic-pituitary axis, the autonomic nervous system and catecholamine response are often cited as stress sensitive system (James, 2004).

### **D. Stress and Health**

Stress manifests in various forms of emotional disorders and gets its reflection in the form of anxiety, depression, helplessness, hopelessness and anger (Singh and Singh, 1992). With the slightest provocation the people having distress prone personality patterns are easily induced to anger and anxiety and become unable to relax. The ten most general claims accepted by medical science are for the treatment of stress related illnesses (i.e. high blood pressure, high cholesterol, asthma, depression, menopause, type 1 diabetes, epilepsy, type 2 diabetes, ischemic heart diseases and gastro-oesophageal reflux). Furthermore, 75% of the visits to primary health care facilities are stress-related (Van der Merwe, 2005).

People who are stressed are more likely to experience pain-related conditions, and a host of other ailments, from teeth grinding and chest tightness to fatigue.

Stress is the body's reaction to a change that requires a physical, mental or emotional adjustment or response. But too much stress can cause a lot of discomfort and can get in the way of being able to focus and achieve. Stress is the body's reaction to a change that requires a physical, mental or emotional adjustment or response. But too much stress can cause a lot of discomfort and can get in the way of being able to focus and achieve.

### **E. Occupational Stress**

Occupational stress has become one of the most serious health issues in the modern world (Lu, Cooper, Kao, & Zhou, Y., 2003). Steers (1981) indicate that occupational stress has become an important topic for study of organizational behavior for several reasons including the psychological and physiological effects on employees, employee turnover and absenteeism, affect the safety of other employees, By controlling dysfunctional stress, individual and organization can be managed more effectively .

Many people not aware of occupational stress that occur in the organization and they did not care about the occupational stress. They assume that the occupational stress will only affect their performance of work but also affect their health like heart attack, migraine that can lead to death. If people not were aware about job stress, it will become worst such as suicide (Yahaya, 2010). Occupational stress is something all people face as employees or employers and all people handle it differently.

The paper is organized into sections: The last section was deals with literature review which focuses on the related work done in the same field. The Second section covers the objectives; the scope of study, third section is methodology for analysis of data. The fourth section reports the analysis the facts of the study and result and discussion. Fifth section provides the suggestion for further studies. The sixth section presents conclusions of the study.

## **II. OBJECTIVE OF THE STUDY**

The study objective is to identify the major factors of occupational stress and their impact on health of police personnel's.

## **III. METHODOLOGY**

### **A. Sample and Design**

A representative sample of 300 police personnel belonging to three hierarchal levels of police personnel Inspector/TI, Asstt. Sub Inspector/ Sub-inspectors, and, Head constables/ Constables were randomly selected to participate in the study. A conscious effort was made to select equal number of

police personnel in each of three categories distributed equally in administration and operations/field.

The design of the study was 2X3 factorial with two categories of responsibilities (operations and administration) and three level of police personnel

(Inspector/TI, ASI/ SI, and, Head constables/ Constables). Thus, in a total sample of 300 respondents in each of six potential categories 50 police personnel were randomly selected to participate in the study.

The schematic presentation of design and sample distribution is given below:

**The Schematic Presentation of the Design**

Hierarchal Levels of Police Personnel	Administration	Operations/Field
Inspector/Town Inspector	50	50
Assistant Sub Inspector/ Sub-inspectors	50	50
Head constables/ Constables	50	50

**B. Measures:**

A semi-structured survey method comprises of occupational stress and health, as well as the effect of occupational stress impact on health.

**Occupational Stress Covering Number Items**

S.No.	Occupational Stress Variables	Number of Item	Range of Score
1.	Role Overload	6	30
2.	Role Ambiguity	4	20
3.	Role Conflict	5	25
4.	Unreasonable grp. & Pol. Pressures	4	20
5.	Persons	3	15
6.	Under participation	4	20
7.	Powerlessness	3	15
8.	Poor Peer Relations In	4	20
9.	Impoverishment	4	20
10.	Low Status	3	15
11.	Strenuous Working Conditions	4	20
12.	Unprofitability	2	10

*Source:* A. K. Srivastava and A. P. Singh, 'The manual of Occupational stress index', ManovaigyanicParikshanSansthan, Varanasi, 1984. Page No.-3.

**Norms in Judging Occupational Stress**

Sr.No.	Sub- Scale	Level of occupational Stress		
		Low (Below-1)	Moderate (Between±1)	High (Above+ σ)
	I			
1.	Role Overload	6-14	15-22	23-30
2.	Role Ambiguity	4-9	10-12	13-20

3.	Role Conflict	5-12	13-17	18-25
4.	Unreasonable grp. & Pol. Pressures	4-9	10-14	15-20
5.	Persons	3-7	8-11	12-15
6	Underparticipation	4-9	10-12	13-20
17.	Powerlessness	3-7	8-11	12-15
8.	Poor Peer Relations In	4-8	9-13	14-20
9.	Impoverishment	4-9	10-13	14-20
10.	Low Status	3-6	7-11	12-15
11.	Strenuous Working Conditions	4-9	10-12	13-20
12.	Unprofitability	2-4	5-7	8-10
<b>Total Score</b>		<b>46-122</b>	<b>123-155</b>	<b>156-230</b>

Source: A. K. Srivastava and A. P. Singh, 'The manual of Occupational stress index', ManovaigyanicParikshanSansthan, Varanasi, 1984. Page-9.

### C. Health Scale

The modified version of the S-L-C 90 symptom checklist derived from DerogatisRickels and Rock( 1976) was used to assess the frequency of health-related problems. This scale assesses a wide range of common somatic symptoms. The Hopkins symptoms checklist (HSCL) is a well known and widely used screening instrument that dates from the 1950s. The scale consists of thirty two items, each to be rated on the yes or no. One score was given to yes response while no score is given for the no response. High score is indicative of more health problems.

### D. Procedure

In order to carry out the study, official permission for data collection was sought from the Commissioner of Police, Bhopal city, Madhya Pradesh. Following this the respondents were contacted personally. The researcher time to time as per the convenience went to them. Mostly, the questionnaires were filled in the office premises in the presence of researcher. After distributing the questionnaire, the respondents were requested to read the instructions carefully, and indicate their answers as desired sometimes on a five-point scale & the sometimes in the yes/no format checklist in all the sections of the questionnaire. The data for the present study was collected through police Training Colleges, located in central India where Inspector/ Town Inspector, Assistant Sub Inspector/ Sub-inspectors & Head constables/ Constables were attending to undergo training. Some of the potential respondent who visited the welfare society were also contacted and after their approval data was collected on them some of the police personnel connected with 25<sup>th</sup>, 26<sup>th</sup> & 7<sup>th</sup> battalion. The participants were randomly selected from those

personnel who attended the three days behavioral science programmes which cover useful inputs on various aspects of stress management. In one of the training sessions, the participants were distributed the semi-structured questionnaire. Although the instructions were written on the questionnaire, verbal instructions were also given so that all the participants were able to understand clearly the procedure of recording the responses. The participants were asked not to write their name and were assured that the responses given by them will be kept confidential, and would be used for research purpose. The test was done as per norms test administration. Special care was taken to see that since the rest were administrated individually there was objectivity in test so that there was no bias tests scores. On average the police personnel took forty five min to one hour to complete the survey questionnaire. After the questionnaire was filled the participants were thanked for their cooperation. They were assured that the responses given by them will be kept confidential and will not be disclosed to anyone and will only be used for academic purpose.

### IV. RESULTS& DISCUSSIONS

In order to develop about the research questions, the data required appropriate, descriptive, bi variate and multivariate analysis. At the initial level demographical detail of the obtained data was analyzed including age, sex, marital status, present posting, job duration, previous posting and promotions. Secondly, comparison of the means of dependent variables across three levels of Job hierarchy (e.g. designation) and two levels of nature of present posting (Administrative and field) was done by utilizing one way ANOVA. Furthermore, factor analysis was performed to develop wellness life style habit scale. Finally the correlation

results have been presented to demonstrate the nature and strength of relationship between independent and outcome variables. Regression analysis was conducted to understand the relative predictive power of components of occupational stress with effect on health.

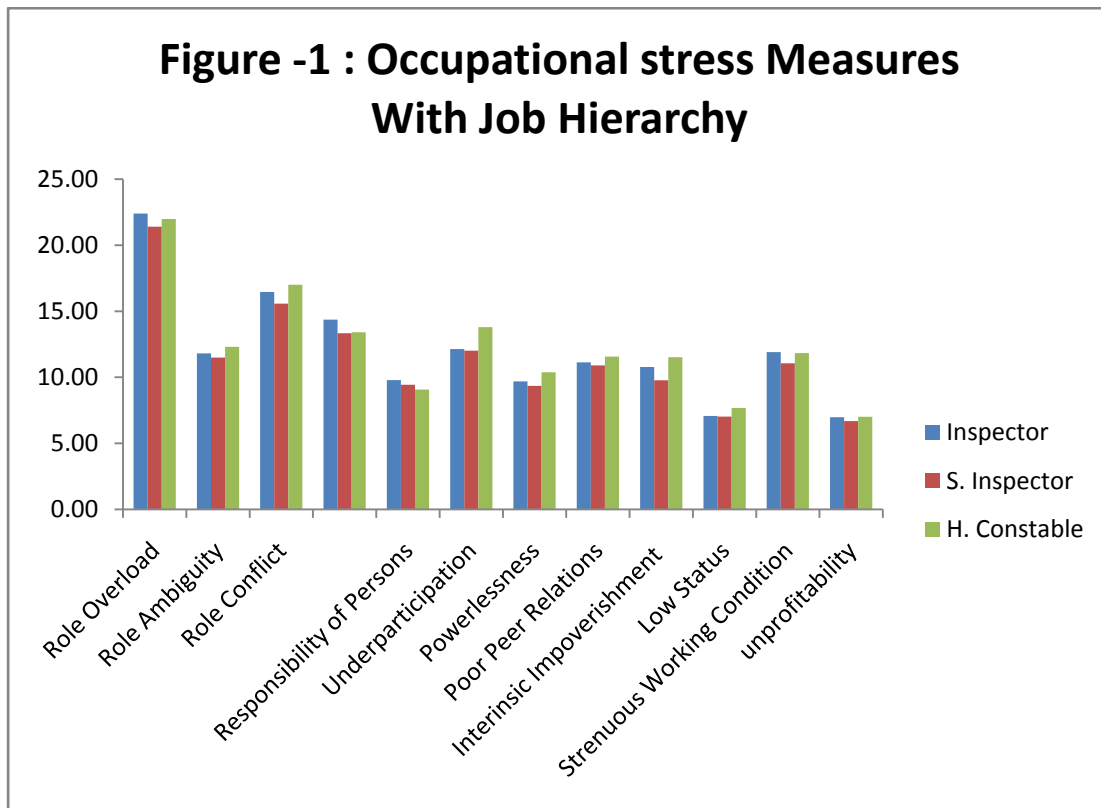
**A. Result Analysis**

In order to understand the nature and strength of relationship between measures of Occupational stress, wellness life style habits and health Pearson’s correlation was computed. The result of inter correlation is presented in table 4a. The table represent table 4a reveal that role overload role ambiguity and unreasonable group & political pressure was significantly and negatively correlated with physical. & emotional wellness habits but was positively correlated

with health. In other words the policed personnel experiencing higher role over load, role ambiguity, role conflict, and were exhibiting higher level of unreasonable group & political pressure express lower level of physical. & emotional wellness & expressed more health problems. Excluding one all the other eleven factors of occupational Stress were not correlated with spiritual well. Intellectual wellness & time wellness. Almost all the components of occupational stress was found to be significantly and positively correlated with health. In other words police personnel who are reporting high level stress exhibited more health problems. Most of the components of occupational stress were negatively related to low physical & emotional wellness.

**Table 4.1- Mean and Standard Deviations of Occupational Stress as a Function of Job Hierarchy**

S.No	Occupational Stress	DESIGNATION						F	Sig
		Inspector		S. Inspector		H. Constable			
		Mean	SD	Mean	SD	Mean	SD		
1	Role Overload	22.40	4.128	21.40	4.727	21.99	4.910	1.347	0.262
2	Role Ambiguity	11.81	2.972	11.49	3.942	12.31	3.051	1.611	0.201
3	Role Conflict	16.46	3.164	15.58	3.314	17.00	3.219	5.232**	0.006
4	Unreasonable grp& Political Pressure	14.37	3.730	13.33	3.546	13.41	3.593	2.903*	0.056
5	Responsibility of Persons	9.79	2.38	9.43	2.200	9.07	2.52	2.508	0.083
6	Under participation	12.14	3.332	12.02	3.140	13.79	3.095	9.620**	0.000
7	Powerlessness	9.69	2.144	9.35	2.309	10.38	2.877	4.486**	0.012
8	Poor Peer Relations	11.13	2.452	10.9	2.238	11.57	2.119	2.217	0.111
9	Intrinsic Impoverishment	10.78	2.955	9.77	2.118	11.52	3.060	10.289* *	0.000
10	Low Status	7.07	2.237	7.02	2.045	7.68	2.220	2.997*	0.051
11	Strenuous Working Condition	11.91	3.047	11.06	2.725	11.83	3.111	3.035*	0.050
12	Unprofitability	6.98	1.833	6.68	1.829	7.01	2.038	0.997	0.370



The Mean And Standard Deviations of Occupational Stress as a Function of Nature of Job is presented on table 6. The Table 6 reveals that police personnel who were assigned field duties significantly reported more role overload, role ambiguity, and role conflict, unreasonable group and political Pressure and more responsibility of persons then the counter parts

that were posted in administrative offices. Furthermore, police personnel posted in the field duties reported significantly more low status, unprofitability & strenuous working condition relative to the counterparts to be working in administrative working office. No significant differences found

**Table 4.1.1 - Step Wise Regression Analysis of Occupational Stress Components Predicting Intellectual**

S. No.	Predictors	R	R <sup>2</sup>	β	T	Sig
1	Unprofitability	0.14	0.02	0.14	2.44	0.02

Table -16 reveal that out of 12 components of occupational stress Role Overload, Powerlessness, Poor Peer Relations and Role Ambiguity significantly predicted Health. These four factors together explained

30% variance. Individually Role Overload contributed 17% Powerlessness explained 2%, Poor Peer Relations added 8% and role Ambiguity 3% respectively.



**Table 4.1.2 - Step Wise Regression Analysis of Occupational Stress Components Predicting Health**

S.No	Predictors	R	R2	$\beta$	T	Sig
1	Role Overload	0.41	0.17	0.3	5.24	0.00
2	Powerlessness	0.49	0.24	0.20	3.76	0.00
3	Poor Peer Relations	0.52	0.28	0.19	3.71	0.00
4	Role Ambiguity	0.55	0.30	0.2	3.44	0.001

Table -17 reveal that out of seven components of Wellness Lifestyle Habits Intellectual Wellness Habits, Environmental Wellness Habits, Emotional Wellness Habits, Social Wellness and time wellness. These five factors together explained 57% variance. Individually Intellectual Wellness Habits 33%, Environmental Wellness Habits 6%, Emotional Wellness Habits 5%, Social Wellness Habits 6% Wellness Habits 7% respectively.

**B. Discussion**

The major results obtained in the present study reveal that high levels of occupational stress adversely affect the health of the police personnel. In the order of priority Role overload, powerlessness, poor peer relationship and role ambiguity were found to be potent occupational stress factors predicting health. Furthermore if we look at the ANOVA results on health it seems clear that the adverse effect of Occupational stress on health is more prominent for those police personnel who are posted in the field. While police personnel who at the lowest level in the organizational hierarchy (e.g. head constables) report higher levels of role conflict, intrinsic impoverishment, powerlessness and low status as most potent factors than their counterparts who are at the higher levels. In contrast, Inspectors reported significantly higher levels of group and political pressure than their counterparts.

Johnson, Cooper, Cartwright, Donald, Taylor and Millet (2005) found that police was one of the six professions where the high stress led to maximum impact in terms of poor health and low job satisfaction.

Traumatic stress is well known stress cause by physical hazards and is common in police. This kind of stress arises due to Police organizational structures and hierarchies tend to be rigidly stratified and unresponsive to individual needs. In many cases when the police personnel’s are not able to handle their occupational stress successfully further when the exposure to stress is prolonged and uncontrollable they reach what Seyle (1976) calls the state of exhaustion. Such stressful situations may increase the incidence of suicide and fratricide which has been rising over the

years due to the physical and psychological problems faced by the police force.

**V. SUGGESTIONS**

Future studies may like to study the buffering effects of wellness with stress and health more systematically and on a large sample size. It will also be a great interest to study the stress, wellness and health links on all levels of police personnel assigned range of responsibilities and duties. While the adverse consequences of stress are sometimes very severe and even drastic steps both directed towards self (e.g. suicide) and others (e.g. sometimes killing innocent others) are at increase not only in police force but also can be seen in Military and other uniform services. It is imperative to intervene and help the police personnel’s in reducing their stress level.

Some stress management workshop may be designed wherein components of wellness life style management are incorporated so as to develop more positivity and more optimism in the police personnel. Some reforms are essential and enhancing the police force seems imperative to deal with the stress related adverse effects.

**VI. CONCLUSION**

Police personnel of different ranks differ both quantitatively and qualitatively in their experience of occupational stress. The constables belong to the lowest strata; they obey commands of inspectors/sub-inspectors and impart assigned duties as part of police work. The inspectors are placed at the intermediate level; they are expected to investigate cases and registered first information report. They are also responsible for the law and order situation in their area of jurisdiction and the supervision of work at the police station. The Inspector's role is such that he can be and really is the bridge between the superior police officers and subordinate staff. The subordinate police personnel had the highest scores on stressors such as job boredom, over load of work and lack of praise and relatively high scores on noxious physical environment, communication quality, and decision latitude and role ambiguity. Empirical evidence exist that the police personnel rank in the hierarchical power ladder was

found to play an important role with Sub inspectors and inspector's group reporting most stressed than their senior officials (Yadav, 1994, Nagar, 2009, Maria, 2005).

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