



An Investigation Of Stress Among Government Sector, Public Sector & Private Sector Executives & Police & Jail Administrators

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Abstract

The present study is aimed at studying the stress levels of the executives working in different arena such as Government owned companies,(Public Limited Companies) Privately run companies (Private Limited Companies)& Administrators of Jail & Police ie the IPS Cadre executives. The objective is to weigh the working environment,style, the level of commitment & competition faced by these executives to withstand the work pressures. The study was carried out on these four groups, namely the Government Sector executives from NIT(Nagpur Improvement Trust), NMC (Nagpur Municipal Corporation),the Public Sector Undertakings like BHEL(Bharat Heavy electrical limited), SAIL(Steel authority of India Limited),WCL(Western Coalfields Limited,(the Private Sector Undertakings like Indorama Synthetics, Moraraji Mills, KEC International,&Jail administrative authorities belonging to DIG level & Police Officers belonging to DSP Level.

All of them were interviewed based on a questionnaire & further the data is tested on the ESI Scale to evaluate the pertinent results.

Introduction:

The term “stress”, as it is currently used was coined by Hans Selye in 1936, who defined it as “the non-specific response of the body to any demand for change”. Stress was generally considered as being synonymous with distress and dictionaries defined it as “physical, mental, or emotional strain or tension” or “a condition or feeling experienced when a person perceives that demands exceed the personal and social resources,the individual is able to mobilize.” Thus, stress was put in a negative light and its positive effects ignored. However, stress can be helpful and good when it motivates people to accomplish more.

Much research has been conducted on stress over the last hundred years.Some of the theories are being accepted & others are still researched & debated. Hans Selye (1956) was one of the founding fathers of stress research.He postulated that stress is not essentially bad ,it all depends on how one takes it.The stress of exhilarating,creative & successful work is beneficial whereas that of failure,humiliation or infection is detrimental.

Therefore stress is a negative emotional state brought on by an individual because of the inability to apply sufficient or appropriate personal, psychological resources to environmental & internal stressors.

Another scientist Harold Wolff(1953) agreed that the stress should not be viewed in a purely physical sense, it was agreed that the relation between the strength of input & the subsequent response is not linear. Thus it's not the direct cause but the trigger for the organism's response mediated via CNS (Central Nervous System). He suggested that stress is a dynamic response and not the stimulus, assault, load, symbol, burden or any aspect of environment, internal, external social or otherwise.

He further quoted that since stress is a dynamic state within an organism in response to a demand for adaptation, & since life itself entails constant adaptation living creatures are continually in the state of more or less stress.

It is incidentally quoted that the stress free existence is perhaps the mirage. Hence Seley commented, "complete freedom from stress is death".

Stress has been seen to impact the overall well being of an individual. Risk factors for stress related illnesses are the mix of the personal, interpersonal & social variable. Stress related diseases, however occur as an excessive & prolonged demand on an organism's coping resources.

Mind Body Theories:

If feelings of stress do, indeed, influence our health then it needs to be explained how mental perceptions influence biochemical & then physical changes in the body. The impact of emotions on the mind or the body has been the topic of fascination, debate & disputes for centuries. Most physiological responses emphasize the importance of response to the change "rather than the change itself, such as its meaning, predictability & the controllability with regard to the stress or the stressors.

Interactional Definitions

Cox(1978) sees it as a perceptual phenomenon arising from a comparison between the demand on a person & his ability to cope. An imbalance in this mechanism, when coping is important gives rise to the experience of stress. According to him stress is not the objective imbalance between demand & coping ability but a subjective one when it is perceived that one cannot cope, then stress is manifested.

Hinkle (1970) however assigned all the phenomenon to the internal physiological reactions & stated that it should be better correlated through the investigations of CNS response to inputs.

Lazarus & Folkman (1980) defined stress as the whole of the system that undergoes overhauling when demand exceeds personal resources. Here the person appraises the demands & encounters coping process & responds cognitively & affectively. He outlined the connection of environment to stress when he stated it to be person-specific. (Cognitive theories of stress & the issue of Circularity, Apple & Turnbull (1986) This being subjective Christian & Lolas, 1985) states that "Man participates in determining the type & intensity of stress."

Homeostatic Based Definitions

The changes followed by the adaptation process leads to imbalance causing disfunction. The environmental challenges cause the hyperactive adrenal activity, which cannot be accommodated within the normal metabolic scope. This observation is based on the observation of the chronically stressed organisms.

Adaptive Scope based Definition

Homeostasis involves certain balance within the dynamic range called as adaptive scope. Thus stress is pushing a function beyond the dynamic scope till the homeostatic balance can compensate without inducing a maladaptive function. Rates deprived of stress in early life sent under developed, sluggish & ineffective pituitary system (Ewert 1980:251)

Measurement of Stress

In order to rectify the subjective aspect of stress Dohrenwend (1986) suggested the "Life Event Scale" to develop a clear relationship between the stress & the stressor. This ultimately evolved into a stimulus-response loop without any feedback thus avoiding the possibility to assign the symptoms as the stressor. The shift thus shifts from the Subjective measurement i.e. Symptom checklist to more objective indicators viz, Biochemistry. Apple & Turnbull emphasized the origin of stress in environment making the individual differences in responses more inevitable.

Lazarus contradicted the view of life & big events as the only triggers of the stress & said that the smaller & the chronic low level stressors may play a significant role in developing the pathology. He invented the 'Daily Hassel Scale' in 1980. It included the experiences of feelings like future security, time pressures, household problems, personal concerns, financial responsibility & the environmental problems etc. Cohen et al (1983) added circulatory theory through his 'global measures of perceived stress' correlating with outcome measure of symptoms

Biological Theories

These theories depict the whole circulatory of the event, how it is interpreted by the brain, how it is translated into the emotional response & how it generates the biological

response. The trajectory of the responses causing damage by reacting physiologically much depends on the role of genetics & the immune system.

The Somatization Process

The cognitive & the behavioral processes determine the neuroendocrine & the neurovegetative response to stressors. All the physiological & psychobiological stress theories empathies the influence of psychic factors on bodily functions. They represent the feedback regulatory mechanism in which the ability of the brain to regulate immune response depends on the capacity of the immune system to influence brain functions.

The limbic System consists of two circuits comprising several components that bridge the neocortex (the thinking brain) with the part of the endocrine system. It is the repository of the emotions & drives. The upper portion originate from the septum & includes the anterior thalamus, the fornix & the singulate-gyrus. Its associated with the feeling states of pleasure, sexual arousal & reproduction. The lower circuit is driven by amygdala & includes Hippocampus, hypothalamus & mammillary body

Genetics & Genomics

R. Sapolsky, (A gene for nothing, Discover the World of Science 1997:18(10):40-46) postulated that “a gene does not produce a behavior”, it does not produce an emotion or even a fleeting thought. It just produces a protein. Each gene is a specific DNA sequence that codes for a specific protein. Proteins do compose hormones & neuro transmitters & the receptors to receive messages from them. They are vital for a brain to do its business, but they do not cause a behavior to happen. The receptors may cause a response to a particular event in a particular manner, thus it doesn't make you anxious but you can be more responsive to an anxiety-provoking situation. Interestingly, “There are genetic vulnerabilities, tendencies, predispositions—but rarely genetic inevitabilities”

Hence evolution is about natural selection for different sensitivities & responses to the environmental influences.

The phenotype is designed by the environment & not just the genotype.”

“Experience molds the brain in a process that continues throughout the life “

The very structure of the brain & the function of mind, emerges from the interaction between the maturation & the experience. The human brain grows by a factor of 3.5 to 4 times its birth weight & the elaboration of pathways in the brain is highly dependent on the quantity, quality & timing of intellectual & emotional stimulation. (L. Eisenberg Would cloned humans really be like the sheep? N. Engl J med 1999;340:471-5)

Objectives:

1. To investigate stress among executives, administrative officers, public sector corporates, and administrative officers from police & jail departments.
2. To investigate stress as a function of performance.

Hypothesis-

1. Various type of executives differs significantly from each other on stress.
2. To correlate the stress levels of the public sector, Govt administrators, private sector & police/jail authorities.

Research Methodology:

Sample-

The present study deals with the study of executives from Public sector, Govt administrators, Private Sector & Executives from Police & Jail. The above executives were tested on the variable "stress".

One hundred questionnaires / were solicited from each group making a total of 200 executives.

The executives were taken from Vidarbha Region of Maharashtra. It was a purposive sampling.

Description of the categories of executives:

1. Govt. Administrators: This category is those selected by the Govt. of India & Maharashtra state to administer various govt. bodies like Nagpur Improvement Trust (NIT), Nagpur Municipal Corporation (NMC), & Jilla Parishad (District Board) Officers.
2. Public Sector: It includes organizations & industries run by Government like BHEL, MOIL, SAIL, ONGC, NPIT, National Power Training Institute (NPTI).
3. Private Sector: These are the organizations belonging to Industrial Houses such as Indorama, KEC International, Moraraji Mills, Mahindra & Mahindra.
4. Police & Jail Authorities: They look after maintaining the Law & Order situations & if accused are convicted, they have to look after the custodial care. Their duties are very hectic. This service includes lot of emergencies.

These above four categories are studied in the present investigations.

Design:

The investigation includes 4 groups of executives hence the study yielded observations between group design. 'One way analysis', was computed to differentiate groups on various variables. Inter group mean differences were calculated by standardized range statistics. As

per the need 2 * 2 factorial between subject designs were used. For correlation tetrachoric "r" were computed.

Tools:

DSI – Daily Stress Inventory by Phillip J. Brantley & Glenn N. Jones.

Description Tool-

Daily Stress Inventory was designed by Phillip Brantley & Glenn N. Jones (1989). It is similar to other Life Event Scales. It measures the number & relative impact of common minor stressors frequently experienced in everyday life.; The DSI provides the current measure of stress over 24 hours of time & can be administered serially over several days of the week. For this study the inventory was standardized on Indian sample by Mrunal & Augustine (1996). It contains 40 statements which describe daily events that can be upsetting or stressful. They are to be rated on the Likert Scale ranging from (1st to 5) memorizing from the past one month. Internal consistency reliability and stability was computed. The coefficient found were 0.0800.72, to 0.28 respectively. The DSI has concurrent validity with another measure of daily stress, the Daily Hassle Scale & endocrine measure of the Stress. It has also convergent & discriminate validity, whose coefficients were 0.050.39, 0.13, 0 to 0.20 respectively. Construct validity was also calculated whose coefficients were also high.

Results:

The main aim of the investigation was to assess the effect of stress among various administrative.

The hypothesis was to measure & compare Stress levels among these 4 groups. To meet this objective One Way Variance was computed.

Table 1: Summary of Analysis of variance of Stress among 4 groups of Executives

Source	SS	df	MS	F
Between Treatment	92140	3	30317.33	7.007**
Within Treatment	1735656	396	4302.96	
Total	• 1827796	399		

F_{29(3,396)} = 2.62

F_{99(3,396)} = 3.83

From the above table it can be observed that $F=7.007, p<0.01$. Since F test is the global test which is significant in the present case which implies that the 4 categories of Executives differ significantly from each other. To find out the significance of the different individual t-test were administered.

Table 2: Showing intergroup mean differences.

	Public Sector A	Govt.Administrator B	Private Sector C	Police /Jail D	
38.15	--	32.45		52.42*	R4
70.6	--	--	40.1**	19.97*	R3
78.25	--	---	7.65**	12.32 *	R2
90.57	--	---	--	--	

$t_{.99(499)} = 2.58$

$t_{.95(399)} = 1.9$

From the above table it can be observed that the executives of the Public Sector score least on stress i.e. 38.15 followed by Govt. Administrators (70.6), Private Sector 78.25 and Police /Jail authorities 90.57.

From the above table it is evident that all the six intergroup mean differences are significant at .01 level, which implies that Public Sector Executives (M=38.15) differ significantly from Government administrators (M=70.6), $t=8.64, p<0.01$, from Private Sector Executives (M=78.25), $t=10.6, p<0.01$, from Police/Jail administrators (M=90.57), $t=13.95, p<0.01$. Similarly Govt. Administrators (M=70.6) differ from Private Sector Executives (M=7.65), $p=2.03$, from Police/Jail Administrators (M=90.57), $p<0.01$. Finally the Public Sector Executives (M=12.32), $t=3.27, p<0.01$.

Discussion

It is observed that the Public Sector Executives had the lowest stress followed by Government Administrators, Private Sector Executives & Police & Jail.

The above observation shows that the overall systems in which the executives are working which comprise of many tangible aspects such as organization structure, authority, responsibility & accountability and the intangible aspects such as principles & policies, the line of authority, the culture of organization & the productivity play major roles.

In the Public sector set up the organization structure is vivid. The line of command is quite blurred leaving a subordinate in much relaxed position.

In the Govt Organization structure is quite "organized" so that the higher authority concept is constantly at work, creating a moderate stress. Private Sector Executives experience more stress because of the "compact" organization structure with "line of Control" & "Chain of Command" being strictly followed. The highest stress being observed in Police & Jail Authorities may not be the direct implication of organizational structure though the "authority" & "command" are the intrinsic factors. Here the job description & the Job evaluation are stretched out to the extent of near breaking & thus "performance" becomes the herculean task. Most of the time the "onus" lies on how bad the criminal is & the overall mindset of the society. As police/Jail authorities are constantly interacting with the "negative" forces of the society there is inherent stress in the type & pattern of work.

As far as the authority responsibility & accountability part is concerned the lowest stress in the Public Sector is purely due to non-existing objectives & deadlines. The size & type of the organization leaves them in utter domestic environment where even if any mistake is caught it takes long to take any punitive action. Another reason is the typical working in the departmental style where because everybody is responsible for everything nobody actually is responsible for anything.

Govt. Administrative seem to experience more stress because "though" transparency issues have not yet started knocking their doors as yet they are bound to show some time bound results and the line of authority is quite well defined. The accountability part though has not been developed in the form of written report, the directives in the form of communication have put up more stress in the overall manner albeit not in the form of figurative targets.

Private Sector executives experience more stress & has direct role in the risk taken by the stakeholders in equity, brand & the goodwill. They have to work under tremendous pressure of completion of targets in the form of quantity, quality & productivity. In Private Sector the Organization Structure & the positions are constantly in flux, thus leaving every one working under purposeful stress.

References

Appley M.H. , Turnbull R (eds), (1986).Dynamics of stress: Physiological, psychological & social perspectives ,New York:Plenum

Christian, P., & Lolas, F., (1985). The stress concept as a problem for the theoretical pathology , Soc. Sci. Med. (Oxford), 21: 1363-1365

Cox ,T. , (1978).Stress(London:Macmillan Press)

Doherenwend ,B.P., Shrout P.E.,(1985). “Hassles” in the conceptualization & measurement of life stress variables. Am Psychol, 40: 780

Eisenberg L. American Journal of Psychiatry,1549(5): 681

Ewert, (1980): American Journal of psychiatry, 251

Harold Wolff , (1953). Stress & Disease (Springfield I.L.: Charles C, Thomas)

Hinkle , L.E. Jr. (1973). The concept of “Stress” in the biological & social sciences,Science, Medicine. & Manual,Vol. 31-48

Lazarus,R.S.& Folkman (1984) .Stress,appraisal and coping.New York : Springer

Mrinal N.R. (2003). The coping resources as mediator of stress with special reference to Sex Roles & Status,Indian Journal of Pychometry& Education. ,Vol 34,33-39

N.Engl J med (1999’340:471-5)

Phillip Brantley & Glenn N. Jones (1989). Journal Of Behavioural Medicine ,10(1): 61-73

R.Sapolsky (Agene for nothing,Discover the World Of Science 1997; 18(10); 04-46

Saley H. (1956) . The stress of life, New York, Mc Graw Hill Book Company ,H. (1956).

Seley ,H. (1976) . Stress in health & disease reading ,Mass: Butterworth.
