Holistic Stress:
Conceptualization and Measurement

S. Anand Reddy

S F Chandra Sekhar

Abstract

Over the years many sicknesses and diseases like HIV, Hepatitis B, Anthrax, Chicken Guinea, Dengue, Swine flu… etc., threatened human life by creating commotion among the people. Attention on all of these has been like passing clouds. But there is sickness which is growing rapidly; missing the media attention is "the stress". 'Stress' as known is a pressure, tension, and strain, anxiety, helplessness, hopelessness, which has deleterious effects on the lives of the people is increasingly demanding the scrupulous regard from all the professionals of different walks of life. Through it has witnessed more than 60 years of conceptualization generating significant understanding of stress, there are still some gaps existing in the way it is conceptualized and consequently measured and interpreted. A 37-item scale developed to measure holistic stress was subjected to factor analysis, which yielded three dimensions namely, Institutional/work Stress, Individual/personal stress and social/relationship stress. Further, when holistic stress was analysed across experience levels and designations, there were no significant mean variations, indicating that stress is a global experience of employees from a large insurance company. Implications were drawn for practice and research considerations.

Key words : holistic stress, health problems, institution, self, relationships, exercises, coping mechanisms.

Introduction

Stress as a subject of research has been receiving increasing importance in these days for significant reasons (Chandrasekhar, 2009). At least some of them are 1) it is probably the only concept that has received attention from both the doctors and behavioral scientists. 2) It is involved in the etiology of physiological, psychological and behavioral illness. 3) Its ramifying consequences are varied, adverse and deleterious on the work lives of the staff (Verhaeghe, et.al, 2003). Besides, unknowingly, we are spending millions of rupees on treatment of stress-related illness and other social consequences of stress.

Generally speaking, "stress" refers to two simultaneous events: an external stimulus called a stressor, and the emotional and physical responses to that stimulus (fear, anxiety, surging heart rate and blood pressure, fast breathing, muscle tension, and so on).(Bruce Cryer, Rollin McCraty, and Doc Chiidre, 2003) "It is an uptight feeling",   "It is a feeling of tenseness."   "It is being in a pressure situation".   "It is being anxious or frustrated"(Sivastav 2006). Stress is something like a sickness or ailment where most

people suffer from, in modern society. It is a fact of life everybody faces every day. It is the body's reaction to demands placed on it. Stress can be anyone or all of these emotions. One expert described stress as, "wear and tear within the body".

Why stress means different things to different people like?: Tackling a task for the first time, or A meeting with the boss, Giving a presentation, A delayed delivery of important supplies, An irate customer, A tight deadline, A difference of opinion. Stress is a notoriously fickle concept: necessarily subjective, we use it here to refer to the constellation of cognitive, affective and motivational processes activated by the demands of living, and in particular of the workplace (Brenda Gardner, John Rose, Oliver Mason, Patrick Tyler, & Delia Cushway 2005). What is stressful to you today may not necessarily be stressful to you tomorrow or the day after. The chronic situation appears to be similar to a normal situation, usually characterized by daily hassles (Elliot & Eisdrofer, 1982).

Problems of conceptualization

During the last few years, the psychologists have witnessed an increase in the number of trauma cases. This may be due to several reasons like, the increase of vehicular population, (Chandrasekhar, 2009), work place conditions (Com Psych,2001) from the interaction of the worker and the conditions of work (Tom FitzGcrald, 2006), individuals behavior in ways that are in apparent contradictions to their expressed ethical concerns (Andreas Chatzidakis, Sally Hibbert, Andrew Smith, 2006), role ambiguity and role conflict, (Arthur G bedeian et al1981) self-concept and social relationships (Andreas Chatzidakis, Sally Hibbert, Andrew Smith, 2006) speed at which work flows, and the amount of the demand made at the work place. All these caused stress among people in in general. Most of the employees report that they have health-related problems which could be categories as psychosomatic complaints as a consequence of intense involvement in stressful work experiences. Despite this fund of evidence, the development of stress has suffered because of the piecemeal approach that has characterized this area of research. No attempt has been made to verify more than a select few of the reported research findings in a single study. It thus has been largely impossible to determine whether or not a consistency between relationships exists, or whether or not the results being reported are a singular aspect of the organization under

study and bear no relationship to other phenomena. The present investigation is an attempt to fill this need. Thus, the present study has been conducted with two fold objectives taking organization, relationships and self as the holistic stress indicators for employees.

Statement of the Problem

Earlier concept of stress is incomplete since it is conceptualized from the views of job itself or other sources like organizational antecedents. One of the consequences of this continued theoretical elaboration of the stress process has been the development of a sociological model of stress that embraces the complexity of social life (Pearlin et al. 2005). There are also some other factors which needs to be addressed before conceptualizing the job stress as these make the people to be under stress. Stress indicators can fall in three categories of experiences namely, Institutional/work, self and relations.

Institutional/work stress comes not just because of the targets that are given to the subordinates by their bosses or because of the bosses. Stress is known for its emanation from various institutional frameworks including, family, work place, and other agencies like, guilds, clubs, associations etc (Hybels, et al., 2006). Thus, such stress exposure also include various aspects like seating comfort, lighting job security, working hours, etc. which make the people experience more stressed. Further, the structural and processes of an organization is known to be the stress inducing aspects of work lives (Parker and DeCotiis, 1983).

Individual/personal stress depends on the mind sets of the individual. How they perceive their work and how they handle the situations. Because of the variations in their approaches to job they alter the life style which makes people to be under more stress. Many a time, stress is a creation of mishandling of work life situations by an individual employee. Inability in handling the workplace demands and lack of knowledge about the work will also induce stress feelings among the employees and also quite likely in other facets of life besides workplace (Choi, Jaepil, 2008).

Social/relationship stress is the one which comes due to the relationships with the people around, may be the people who are in the office, may be the people at home, or

may be the strangers whom the people perceive as hindrance (Voydanoff, 2007). Literature is replete with illustrations of relationship induced stress (Morrison, Rebecca; O'Connor, Rory C., 2008). Such views are proposed in the conceptualization of stress in this paper. Consequently such conceptualization helped in measuring and reporting results in this paper.

The Present Study

In this consumerist and fast moving world where human being is giving importance to getting more things done within the short period of time, thus stress is indispensable and inseparable from the daily life of man. There have been plenty of studies done on stress from various disciplines. Because man is being stressed from all angles of life at all the places; be it a social, psychological, personal/behavioral, or be it at home or work place. This study shows that stress and experience are proportionally related. This conclusion is drawn after studying the employees from organizational, personal, and social angles. As the people become more experienced the demand or expectations of the organizations from the particular people also increases. As a consequence these people start taking unnecessary tensions which are resulting in various sicknesses, either physical or psychological or behavioral.

Consequently, a scale to measure holistic view of stress experienced by employees from an insurance company has been developed and results in this regard are reported in this study. Earlier research (Carsten K.W. De dreu,2002, Raber Merill F. And Dyck George 2005, Tom Fitzgcrald, 2006,Ongori, Henry, Agolla, Joseph Evans,2008) has grossly ignored such comprehensive view of stress, therefore, such comprehensive view necessitates the understanding of the stress experiences in its complete form and helps further in evolving comprehensive coping strategies.

Thus, this study has two fold purpose. Firstly, it attempts to develop a scale to measure holistic stress experienced by employees. Secondly, analyze levels of such stress, dimension wise, in accordance with designation and years of experience. Implications were drawn for coping with stress from holistic perspective.

Objectives and Hypothesis of the Study

In view of the aims of this study the objectives are: 1. to assess extent of perceived stress among employees using holistic approach, and 2. to analyze extent of stress in relation to the type of function and experience of the sales staff. While keeping in view the objectives, it is hypothesized that "there is no significant variation in holistic stress according to the years of experience and designation of the respondents".

Research Method

This study is carried out in a large general insurance company in greater Hyderabad city. Systematic random sampling technique was utilized for the selection of participants of the study. There were approximately 1500 employees in total, of which 150 were selected randomly using the muster roll numbers of the employees. This has resulted employees from different departments like: agency back office, customer sales officer, relationship manger, sales manager.

A structured interview schedule was prepared which includes a 37-item scale developed exclusively. The items were measured with a five-point likert scale (where 5=strongly agree and 1=strongly disagree). The scale details atmosphere of the organization by covering various aspects like discipline in the organization, work timings, seating arrangements, lighting facilities, technology, incentives, growth facilities, motivational factors, outings, etc. It is also structured to bring out how people feel and react to various situations and how the behaviors of the people alter. Besides the scale items also deal with the individuals associations with various people like people at home, subordinates, bosses, customers and the strangers, and their behavior with the various groups of people. The reliability of the scale is established with the help of coefficient of alpha and the factor structure of the scale. The validity of the scale is established with the help of content validity (Carmines and Zeller, 1979). Content validity is typically estimated by gathering a group of subject matter experts (SMEs) together to review the test items. Here the subject mater experts are the combination of three professors of organizational behaviour and three practicing HRD managers. Specifically, these SMEs are given the list of content areas specified in the test blueprint, along with the test items intended to be based on each content area. The SMEs are then asked to indicate whether or not they agree that each item is appropriately matched to the content area indicated. Any items that the SMEs identify as being inadequately matched to the test blueprint, or flawed in any other way, are either revised or dropped from the test. From such exercise, the final list included 37-items.

.

Further, the factor structure and the reliability details of the scale are presented in table 1. In order to test the hypothesis Mean, S.D and F-Values were computed and their consequent results are presented in table 2 and 3.

Results and Discussion

In view of the objectives and the Hypothesis the stress level of the employee have been analyzed according to certain personal characteristics. Results in this regard are presented in the following sections.

Initially, the factor structuring of the scale items have been identifying using principal components analysis for the extraction of the principal components. Further, using varimax rotation with Kaiser Normalization, three factors were identified with each of them having Eigen values more than 1.0. The total percentage of variance accounted for by all the three factors is 60%. Further, the factor loadings suggested that all of the sub-scale items have exceeding more than .40 on their corresponding factors, indicating that the three factors are named as Institutional/work stress, personal stress and life stress. Lastly, the coefficients of alpha were computed for each of the sub-scales of the holistic stress experienced by the employees. The results in this regard are presented in table 1 shows that each of the sub-scale of holistic stress yielded more than .70 , indicating that all the sub-scales of holistic stress are internally consistent and highly reliable.

Table 1: Factor Analysis and Scale Reliability Results

Sno	scale items	Component		
		1	2	3
1.	My institutional/work place imposes high disciplinary code	.627	-.083	.016
2.	Working hours in my current work place never seem to complete.	.699	-.145	-.154
3.	The work targets are often unrealistic	.638	.085	-.303
4.	The seating arrangements are very uncomfortable	.525	.007	-.219
5.	There is no adequate lighting in my workplace	.676	-.126	-.024
6.	Technology seems untamable demon.	.650	-.017	.131
7.	There is no Job security today in my workplace.	.702	.000	.199
8.	There seem growth facilities only in paper.	.805	-.012	-.019
9.	It is difficult to obtain incentives since exceeding targets is unimaginable	.691	-.067	.238

10.	Motivation evaporates no matter how much energies are expended for target realization.	.803	.051	.131
11.	I can't see the forest for the trees here	.715	-.146	.012
12.	I can't think of having breaks	.728	.091	-.297
13.	Taking leaves might result in loosing job	.651	-.056	-.160
14.	I feel like I should have been on a holiday.	-.031	.612	-.010
15.	A larger percent of work had to be Hurried to finish.	.020	.413	.100
16.	Many times I forgot to do the task which I wanted to do and Worry about it.	-.004	.573	.035
17.	I stay awake at night worrying and Planning for the next day	-.071	.483	.220
18.	I experience tightness and pain In my shoulders or neck.	.015	.718	.182
19.	I feel satisfied with myself and my work	-.024	.565	.019
20.	I take decisions confidently on my own.	.213	.602	-.160
21.	I consult my superiors before taking decisions	-.300	.486	-.049
22.	I am able to organize my time effectively.	.011	.613	.022
23.	I get upset if somebody disturbs me when I am busy.	-.006	.820	.002
24.	I become worried when traffic is jammed and getting late for work	-.104	.708	.289
25.	I take enough time to complete my meals.	-.221	.760	-.062
26.	I have difference of opinion with co-workers	-.107	-.211	.494
27.	I have difference of opinion with superiors	-.046	-.048	.590
28.	I am straight forward in expressing my feelings	-.319	.005	.215
29.	I feel bad when my junior is rewarded more than me.	.161	.121	.590
30.	I feel bad when my superiors find fault in me.	-.024	.046	.550
31.	I feel encouraged and inspired when my superiors correct me.	.013	.282	.483
32.	I work better when I am alone.	.103	.096	.735
33.	I have one or more friends to confide in about personal matters.	.158	.084	.435
34.	I have sufficient income to meet basic needs.	-.221	-.067	.670
35.	I call-up home from office many times in a day.	-.010	.136	.476
36.	I face a number of difficult clients in a day.	-.038	.278	.411
37.	I loose patience when I face difficult clients	-.035	.131	.176
	Eigen Values	6.86	4.90	3.04
	Total % of variance (28.54+18.25+13.23=60.02)	28.54	18.25	13.23
	Coefficient of Alpha	.74	.77	.86

Stress and Experience

With regard to "Organization" the respondents who have experience for about 15-22 months (mean=50.78) perceived that they have higher level of stress followed by the respondents who have experience of 12-15 months (mean=50.42). It is also found that the respondents who have experience of 4-11months (mean=49.00) have perceived that they have lower level of stress. However, such variation in the mean scores given in the table shows that it is insignificant.

Table 2 : Holistic   Stress According To the Experiences

	Experience (in years)	Mean	Std. Dev	F (D.F=2,49)	P=
Institutional/work stress	4-11	49.00	5.32		
	12-15	50.42	4.81	.416	.662
	15-22	50.78	6.10		
	Total	50.22	5.39		
Individual/personal stress	4-11	40.91	4.87		
	12-15	41.47	4.94	.074	.929
	15-22	41.57	4.78		
	Total	41.38	4.77		
Social/Relationships stress	4-11	41.08	4.87		
	12-15	39.05	4.57	1.002	.375
	15-22	38.94	4.03		
	Total	39.50	4.45		

As regard to the dimension "self" the respondents who have experience between 15-22yrears (mean=41.57) and 12-15years (mean=41.47) have shown that they have higher level of stress when compared to the respondents who have experience of 4-11years (mean=40.91). Statistics also shows that such variance is insignificant.

" Relationships" with regard to this dimension the respondents who have less number of years of experience that is from 4-11months (mean=41.08) perceived that they have greater level of stress followed by the respondents who have experience of 12-15months (mean=39.05) and finally the respondents who have experience between 15-22months (mean=38.94) perceived that they have lesser level of stress.

Table 3: Holistic Stress According to Designation

Sno	Holistic stress	Designation	Mean	Std. Dev	F (D.F=2,49)	P=
1	Institutional/work Stress	Agency Back Office Managers	49.92	5.32	0.307	0.82
		Customer Sales Officers	51.6	4.24		
		Relationship Managers	49.16	8.61		
		Sales Managers	50.25	4.71		
		Total	50.22	5.39		
2	Individual/personal Stress	Agency Back Office	41.3	4.25	1.607	0.201
		Customer Sales Officer	39	4.64		

		Relationship Manager	43.66	5.27		
		Sales Manager	42.87	5.66		
		Total	41.38	4.77		
3	Social/Relationships Stress	Agency Back Office	39.69	4.62	2.164	0.105
		Customer Sales Officer	36.7	3.26		
		Relationship Manager	41.66	3.20		
		Sales Manager	40.75	4.89		
		Total	39.5	4.45		

From the table3, it is evident that the customer sales officers (mean=51.60) perceived that they have higher level of stress with regards to the dimension "Organization" followed by sales manager (mean=50.25) whereas relationship managers (mean=49.16) and agency back office managers (49.92) perceived that they have lower level of stress. However, P-value suggests that such variance in the mean scores is insignificant.

With regards to the dimension "self" relationship managers (mean=43.66) perceived that they have higher level of stress followed by the sales managers (mean=42.87). Whereas the agency back office managers (mean=41.30) perceived that they have slightly lower stress when compared to relationship and sales managers but the customer sales officer (mean=39.00) perceived that they have lower level of stress. Statistics shows that such variation in the mean scores in not significant.

As regards to the dimension "Relationships" relationship managers (mean=41.66) perceived that they have perceived that they have higher level of stress followed by sales managers (mean= 40.75). Whereas the agency back office managers (mean = 39.69) perceived that they have slightly lower stress when compared to sales managers but the customer sales officer (mean=36.70) perceived that they have lower stress level. However, such variance in the mean score is statistically not significant.

Discussion

1. With regards to "Institutional/work stress " the respondents who have more number of months of experience have more stress when compared to the respondents who have less number of months of experience. This is because of the expectations from them by

the organization having increased as they were expected to be masters of the trade. Since they are with the organization for a long time they are expected to be more challenging and become examples for the juniors.

2. It is found that the people who have more number of months of experience have perceived greater level of stress than that of the people who have less number of months of experience with regards to "self". This is because people are associated with the organization for a longer period of time they are bored of monotonous work and feel disgusted to discuss with the bosses with respect to their work. They worry about their self – esteem, at times of failure to do work properly or to discuss some work related matters with the bosses.

3. As regards to the dimension "Relationships" it is a reverse trend the respondents who have less number of months of experience have greater level of stress when compared to their counter parts. This is because the new people are more worried about how they would be handling the customers, bosses and colleagues.

4. With regards to the dimension "Organization" It is found that customer sales officers have greater level of stress when compared to their counterparts. This is because the officers are worried if they would create wrong impression in the minds of the customers. They are worried how they are going to retain the customers and make the customers to believe that they are with the right people and right organization.

5. With regards to the dimension "Self" it is found that relationship managers perceived that they have higher level of stress when compared to their counterparts. It is because of the role of the relationship managers. They are supposed to be making the people satisfied and thus build the relationships with the people.

6. With regards to the dimension "Relationships' it is found that relationship managers perceived higher level of stress when compared to their counter parts. This is also because of the proper maintenance of the relationships with the people of all kinds.

Implications

Based on the above observations we can say that more the experienced a person in the organization the more is expected of the person and consequently such people

experience more stress. The study also proves the saying "The older you are with the organization the greater the demands from you".

The results of the study conveys an important message to the HR managers that is stress as most of the time most of us think is not the outcome of a single factor or dimension but multiple dimension. Therefore it needs to be seen from a holistic perspective.

While considering stress from a holistic perspective the managers need to bother about various spheres of individual's life so as to strike the balance in individuals life between the work and life by giving right tips at the right time.

The managers also need to consider the various stress releasing techniques like: allocating enough time to eat food, providing some stress busting fun, providing facilities for exercise (Jim), soft music during the intervals or in the cafeteria, giving some yoga techniques, finger magic, etc.

The HR managers need to understand the demands made to experienced employees of the organization and need to support them by providing counseling if required, making available the needed technology, allocating some means of releasing the stress, etc. so that the experienced can be more productive. There is also a need for employee counseling programmes that could focus on addressing coping mechanisms from holistic perspective than otherwise. Similarly, the mentoring and coaching programmes in place could also address these issues systematically.

Further, future research could address replicating the ideas presented in this study, besides, identifying the antecedents and consequences of holistic stress using the scale presented in this study. For instance, a future research models as processed in the following figure could be tested for the robustness of the same besides validating the factor structuring and the reliability of scale presented. A new model is proposed for testing in future research using the holistic stress cues as presented in figure 1.
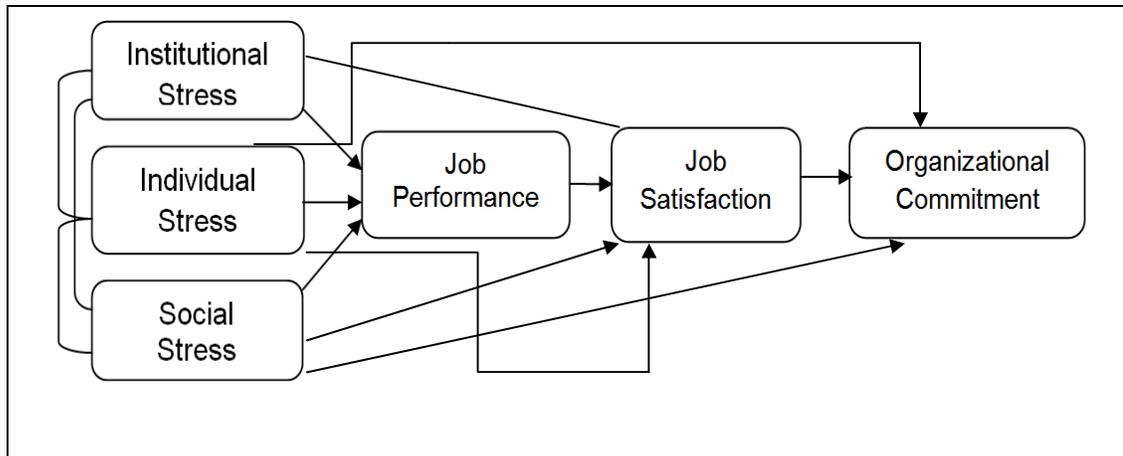
Figure 1 : A new model of holistic stress from organizational theory perspective

All the three :Institutional Stress, Individual Stress and Social Stress are assumed to have very strong and negative effects on job performance, though their individual and combined effects might vary in nature and extent. Further, all these three types of stress are also expected to have negative and indirect effects on job satisfaction and organizational commitment. However, their effects are passed on through job performance to job satisfaction and from job satisfaction to the organizational commitment. Thus, future research could address testing the model suggested using the holistic stress measures, if done, would contributed to a much holistic understanding of the effects of stress on organizationally relevant variables.

Conclusion

This study addressed the issues of stress and different indicators like organization, self and the life. The scale development efforts yielded positive results suggesting that there are three clear factors emerging from holistic stress scale. They are Institutional/work stress scale, personal stress scale and life stress scale. All of them were found robust after statistical treatment. Further, means and standard deviations were computed to test the variables in holistic stress as experienced by employees according to their levels of experience and designation. Very interesting to note from this study that the null hypotheses are accepted, indicating that holistic stress is a global orientation of the employees in insurance companies.   Lastly, implications were developed for addressing holistic stress by HR managers for designing coping mechanisms more divergent and holistic than the existing mechanisms, besides, future research implications were drawn

with the help of a proposed model of holistic stress and its effects on organizationally relevant outcomes.

REFERENCES

Andreas Chatzidakis, Sally Hibbert, Andrew Smith,(2006) "Ethically Concerned, Yet Unethically Behaved": Towards an Updated Understanding of Consumer's (Un)Ethical Decision-making, Advances In Consumer Research Volume 33,

Arthur G Bedeian Et Al,(1981) The Relation Ship Between The Job Stress And Job Related, Interpersonal And Organizational Climate Factors, The Journal Of Social Psychology,.

Atkinson Jacqueline M (2001). "Coping With Stress At Work", Harper Collins Publisher, India

Brenda Gardner, John Rose, Oliver Mason, Patrick Tyler, & Delia Cushway Work & Stress (2005) Cognitive Therapy And Behavioural Coping In The Management Of Work-Related Stress: An Intervention Study; 19(2): 137_ 152.

Bruce Cryer, Rollin Mccraty, And Doc Chiidre, (2003) Pull The Plug On Stress, Harvard Business Review,July.

Carmines G. Edward and Zeller A. Richard (1979). Reliability and Validity Assessment, *SAGE Publications, Inc*

Chandra Sekhar, S.F. (2009) Stress And Psychosomatic Complaints Among Emergency Staff In Select Hospitals

Choi, Jaepil. (2008) International Journal of Human Resource Management, May, Vol. 19 Issue 5, *p*878-895

Com Psych, (2001) Stress Pulse Finding, Chicago Iii,

Hybels, C. F, et al. (2006). Sociodemographic characteristics of the neighborhood and depressive symptoms in older adults: Using multilevel modeling in geriatric psychiatry. American Journal of Geriatric Psychiatry, 14, 498–506.

Kaila H.L, Pai Satish, Ravishankar.S, Dhar Vipender,(2002) "Stress Management" Western And Indian Techniques, Hymalaya Publishing House" Mumbai ,

Kunal Gaurav, Stress And Performance, Icfai Journal, September 2006

Maurus J (1981) "Use Your Stress To Keep Your Distress", Better Your Self Books, St. Pauls Training School, Ahmadabad,

Morrison, Rebecca; O'Connor, Rory C.(2008). British Journal of Psychology, May, Vol. 99 Issue 2, *p*191-209

Ongori, Henry; Agolla, Joseph Evans. (2008) Journal of Management Research (09725814), Dec, Vol. 8 Issue 3, *p*123-135

Pearlin, L. I., Schieman, S., Fazio, E. M., & Meersman, S. C. (2005). Stress, health, and the life course: Some conceptual perspectives. Journal of Health and Social Behavior, 46, 205–219.

Raber Merill F(2005). And Dyck George "Managing Stress For Mental Fitness", Viva Book Pvt. Ltd, New Delhi,

Sabera Begum(2006), Stress Management, Icfai Journal, November

Scott Dru (2005), "Stress That Motivates" (Revised Edition), Viva Book Pvt. Ltd, New Delhi,

Shifra Sagy (*2001).* Moderating Factors Explaining Stress Reactions: Comparing Chronic-Without-Acute-Stress And Chronic-With-Acute-Stress Situations, *The Journal Of Psychology, October .*

Sivastav (2006). Managing Stress At Work Place, Hrm Review, June

Tom Fitzgcrald*,(2006)* The Concept Of Related Stress, Business Credit, June

Verhaeghe, R., Mak, R. VanMaele, G., Kornitzer, M. & De Backer, G. (2003). Job stress among middle-aged health care workers and its relation to sickness absence. Stress and Health, 19, 265-274

Voydanoff, P. (2007). Work, family, and community: Exploring interconnections. Mahwah, New Jersey: Routledge Publishing.

www. Stressdirections.com