META ANALYTICAL STUDY ON IMPACT OF OCCUPATIONAL STRESS ON EMPLOYEES; A HR LEADERSHIP PERSPECTIVE

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Abstract: Occupational stress is inevitable for every level of working poplulation in all industrial sectors even if it is a coveted positon of a CEO/Chairman. This continued distress at the workplace, brings in psychological and physiological dysfunctions and indirectly hits on the motivation of the Individual. It brings down the morale and prevents the worker from excelling in their position. In modern digitalised and highly networked nature of occupations, the levels of job stress are increasing exponentially and this happens despite technological sophistication and ergonomical efforts to make the work place comfortable. The lower awareness level on occupational stress and its sequel represent the majority of work-related illnesses causing missed work days. Those in the protective services, transportation,materials moving, building grounds cleaning, maintenance, and healthcare are more susceptible to both work injuries and illnesses, as well as work-related stress. Improvisation on findings of Occupational stress is gaining attention among Occupational Psychologists and is trickling down challenges to HR specialists of all sectors.

Keywords; **occupational stress, distress, fatique, psychological, disorders, aggression, iInjury, cognitive Impairment, ergonomical**

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Introduction; Occupational stress often stems from unexpected responsibilities and pressures arising due to deficiency in a person's knowledge, skills, or expectations, inhibiting one's ability to cope. Occupational stress increases when workers do not feel supported by supervisors or colleagues, or feel as if they have little control over work processes. This distress leads to poor work performance, higher absenteeism, less work productivity or even injury. "If untreated, consistently high stress can become a chronic condition, which can exacerbate existing mental health conditions and chronic physical conditions (diabetes, hypertension, weak immune system). These conditions not only diminish the well-being of workers and increase the employer's health benefits expenses, they contribute to increased injury incidence. Distress is a prevalent and costly problem in today's workplace. About one-third of workers report high levels of stress. The evidence shows that stress and burnout have direct and damaging consequences for the health and productivity of the health workforce, and indirect consequences for the delivery of health services and the health outcomes of consumers. As outlined above, stress and burnout can lead to physical and psychological problems such as headache, respiratory infection, gastrointestinal infection, neck pain, sleep disturbance, impairment in memory, anxiety and depressive disorders, and alcohol dependence. Other factors associated with burnout include decreased leisure time, decreased social activity and difficulties with the patient–physician relationship and in dealing with patients' families. Staff experiencing stress and burnout often display withdrawal behaviours such as lateness and absence, and staff turnover can be high. Clinical burnout should dictate leave of absence from work but instead can result in 'presenteeism', which is when staff who should be on sick leave are determined to remain at work even though they may be ineffective or need more time than usual to complete tasks.

Countering Occupational Stres by the HR professionals; Challenges in responding to occupational stress and burnout is growing enormously in different directions with newer problems;Health professionals commonly report exercise, alcohol consumption and eating as means of relieving stress. Researchers have studied methods of preventing or alleviating stress and burnout, including:structural burnout interventions, such as developing a more positive organisational culture, and appropriate training, resources and supervision for the provision of constructive feedback and job crafting. Smartphone applications that monitor fluctuations in engagement and give feedback on causes of peaks and lows in engagements. Trying recovery

activities such as social activities, low-effort activities (e.g. listening to music) and physical activities that foster relaxation and psychological detachment from work (e.g. sport, dancing). Exploring the impact on gender; Men and women are exposed to many of the same stressors in which women are more likely to experience psychological distress, whereas men experience more physical strain. The Kenexa Research Institute released a global survey of almost 30,000 workers which showed that females suffered more workplace distress than their male counterparts. According to the survey, women's stress level were 10% higher for those in supervisory positions, 8% higher stress in service and production jobs than men, and 6% higher in middle and upper management than men in the same position.

| Less Work Performance	Less Productivity
Occupational Stress	
Higher Absenteeism	Injury

Figure; 1; The Indirect Impact of Occupational Stress; Concieved and Adapted; Author ; Dr C Karthikeyan

Research evidences across the globe suggests that distress is the major cause of heavy turnover in organizations.

Occupational stress increases negative health effects a study in Europe revealed frequent stress increased the odds of occupational injury by 350%."   Job stress is also associated with various biological reactions that may lead ultimately to compromised health, such as cardiovascular disease, or in extreme cases death. The prevailing competition in business brings in high work pressure and demands in the work place which correlates with heavy occupational stress which in turn increase rates of heart attack, hypertension and other disorders. In New York, Los Angeles, and London, among other municipalities, the relationship between job stress and heart attacks is acknowledged. Problems at work are more strongly associated with health complaints than are any other life stressor-more so than even financial problems or

family problems. Many behavioural studies suggest that psychologically demanding jobs that increase the risk of cardiovascular disease. The physical ailment and other disorders due to Occupational stress are stress induced tiredness and sleep disorders, stomach problems, hypertension, high-cholesterol, autoimmune-disease, cardiovascular-

disease, depression, and anxiety. It also increases the risk of acquiring an infection and the risk of accidents at work. Job stress tend to be much longer over time. Researchers states that the stress affects the cardiovascular system, as well as how work stress can lead to hypertension and coronary artery disease. Research indicates that job stress increases back and upper-extremity musculoskeletal disorders. Stress-related disorders encompass a broad array of conditions, including psychological disorders (e.g., depression, anxiety, post-traumatic stress disorder) and other types of emotional strain (e.g., dissatisfaction, fatigue, tension, etc.), maladaptive behaviors (e.g., aggression, substance abuse), and cognitive impairment (e.g., concentration and memory problems). Consistently high levels of stress increase the risk of occupational injury.
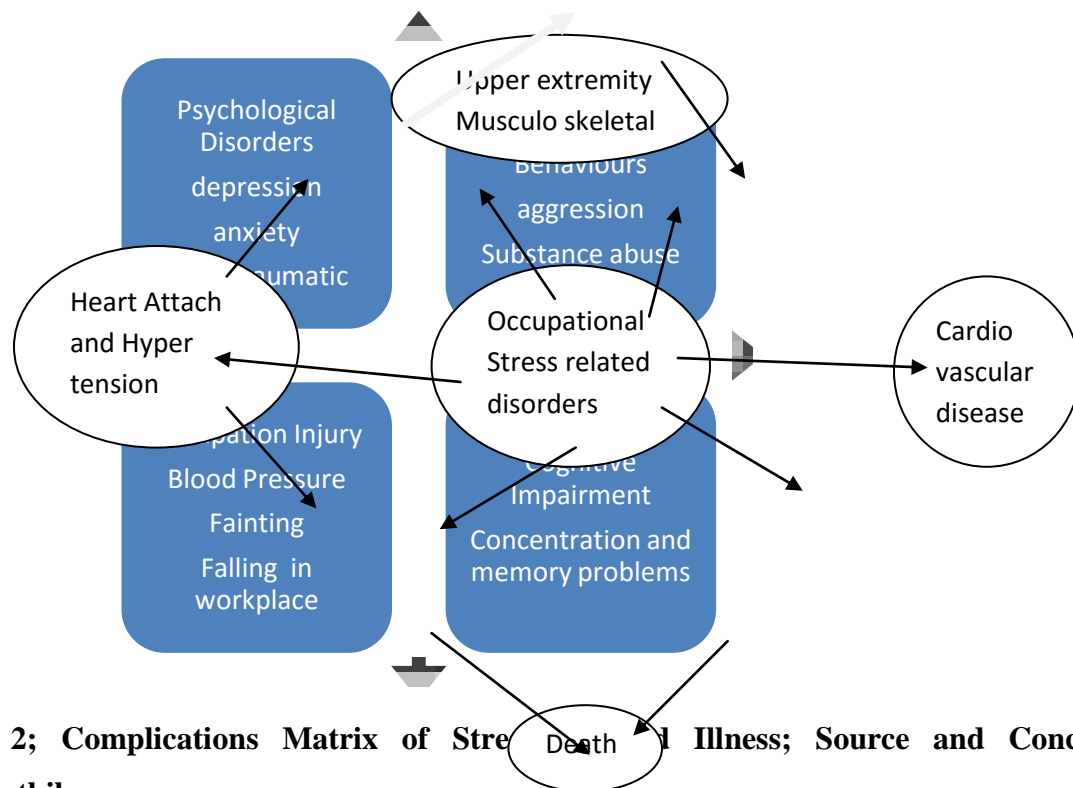
Figure; 2; Complications Matrix of Stress and Illness; Source and Concept; Dr.C.Karthikeyan

Objectives;

(i)   **To explore the developing factors of Occupational stress with the Models Developed earlier and their findings and fitness in the context of work atmosphere.**

(ii)   To examine the impact of Occupational Stress factors in organisation life .

(iii)   To analyse the importance of leadership roles to avert occupational stress.

(iv)   To evaluate the work relationship models that serves to reduce Occupational Stress with its application and to suggest possible solutions.

Hypotheses; (relating only to Literature Reviews)

(i) The Occupational stress models has no significant role in reducing occupational stress, as the modern professional world is changing fast.

(ii) The leadership roles has no significance for control of occupational stress as technology overtakes everyone by surprise and competition leaves no one to relax.

Methodology; Qualitative analysis using Literature Review of previous research and secondary data from authentic organisation sources

Data Used; Longitudinal studies **(1976-2009)** done across countries to prove the objectives and hypotheses

Scope of the study; To add to the current theories by reframing graphic models from the developing theories across the world

Review of Related Literature (related to Longitudinal Studies on Occupational Stress)

Richard Hackman and Greg Oldham reported(1976) found that control (in terms of job-provided autonomy) enhanced motivation and growth - in blue collar, white collar and professional positions. Later Robert Karasek found that workers whose jobs rated high in job demands yet low in employee control (as measured by latitude over decisions) reported significantly more exhaustion after work, trouble awakening in the morning, depression, nervousness, anxiety, and insomnia or disturbed sleep than other workers. When workers facing high demands had more control, their stress was lower. This major insight into how occupational stressors affect health and well-being has led to ongoing improvements in the workplace. For example, many organizations have implemented programs designed to enhance employee

control. In conclusion, since everyone has a unique response to stress, The seven principles and their proposed strategies of 'The OCCUP Stress Approach' and actions for stress reduction supported by ancient Greek wisdom are detailed in the next chapters of this book: 'How to Reduce Occupational Stress'.

Lazarus et al. (1984) model was also confirmed by **Williams et al. (2002)** using structural equation modeling analysis, and where workplace conditions have been demonstrated to be the 15 major determinants of mental and physical health when job satisfaction and stress are used as moderators between dependent and independent variables. According to the theory, stressors (workplace conditions) are subjected to cognitive processes which results in an appraisal of stress (satisfaction, stress) resulting in perceived stress (mental and physical conditions). Several studies show clear evidence that employees who work under stressful conditions are suffering of decreased mental health (see**, e.g., Mishra, Somany**, **1993)** and that traumatic work-related events have psychological **consequences (Wollman, 1993).**

Rees and Smith (1991) indicated that there is a paucity of research on comparatives of stressors experienced by different mental health professionals, for instance, those working in areas such as mental health rehabilitation reports increasingly high levels of stress and burnout among mental health professionals, and there are now increasing demands on specialist areas in mental health such as mental health rehabilitation. This is a result of mental health policy and an increased emphasis on the recovery model in the mental health services where employment is highlighted as important in rehabilitation and recovery (European 11 Commission, 2005; Mental Health Commission, 2006; European Parliament, 2008). It is projected that there will be increased demands for vocational and rehabilitation services for the future of social inclusion of people with mental health problems. This may result in increased pressure on staff.

Sutherland and Cooper (1993) found that psychological ill health (anxiety, depression) was primarily predicted by high levels of job demands, demanding customers, lack of social support, coping strategies and administrative tasks.

Warr (1994) also found that lack of decision latitude and high level of job demands were two important stressors that predicted anxiety and depression. Kirkcaldy, **Furnham (1995**) looked at social support as a moderating variable in the pathway from stress to mental health, but their hypothesis was not supported. Lack of social support appeared to be part of an overall job stress measure and did predict reduced mental/physical health and job satisfaction **(Kirkcaldy, Cooper, Brown, 1995**).

Tsai et al. (1993) nurses participating in relaxation training experienced lower work stress and better mental health than a control group participating in a discussion of theory analysis. The strategy of appraisal (the relaxation training) revealed a significant main effect on the stress and mental health levels, but there was no interaction effect between treatment and time. Although the responses to stress showed to go through the same path of primary and secondary appraisal, time required for modifying health-related responses to stress differed from time required to reduce work-related stress and the results raised the question of whether psychological responses to work stress de- Literature review – Occupational stress and mental health 14 velop more rapidly than conscious identification of the work-related stress responses (mental health).

Travers et al., 1993; Turley et al., 1993; Kirkcaldy et al., (1993) states that scores on the General Health Questionnaire (indicating mental health problems) were higher when the demands exceeded the availability of skills, or when conflicting demands at work are experienced but also when work related violence and abuse are experienced (Balloch et al., 1998). The opposite side of the second factor is described by coping and buffering strategies. Several models have been studied to understand the moderating or buffering effect of individual level variables between work attitudes and emotional well-being. Coping mechanisms have been widely studied in relation to stress and mental health.

Malloch (1993) found that burnout was the outcome of the imbalance between efforts and rewards while dealing with clients. It has been claimed that the outcomes of the ERI model also vary depending on the specific reward indicators. In the study of van Vegchel, de Jonge, Bakker, Schaufeli (2002) esteem, salary, and job security were considered as rewards.

Travers et al. (1993) also suggested to consider the relationship between the level and nature of stress and the profession. Education has multiple direct and indirect relationships with burnout: the better educated participate more in decision making and have more autonomy and this increases work satisfaction, and reduces burnout.

In Turley et al.'s (1993) the work stressors used as independent variables, failed to demonstrate a signifcant effect on mental health. A second Occupational Stress Inventory (OSI, Osipow, Spokane, 1987) has been used to measure stress and mental health problems. This instrument consists of three questionnaires (Marini, Todd, Slate, 1995; Rahim, Psenicka, 1996): (i) the Occupational Role Questionnaire: role overload, role insufficiency, role conflict, role ambiguity, role boundary, role responsibility and physical environment; (ii)the Personal Strain Questionnaire: vocational strain, psychological strain, interpersonal strain, physical strain; (iii) the Personal Resources Questionnaire: recreation, self-care, social support and ration/cognitive coping. Higher lack of personal resources-higher stress and higher stress-higher psychological strain was the result of Marini et al. (1995). The stressors showed to be independent each other, and highlight a different effect on psychiatric symptoms. Only the link connecting role insufficiency and overload to psychiatric symptoms was significant (Rahim et al., 1996).

Singh, Goolsby, Rhoads (1994) argue that burnout occurs when stressors (job demands) exceed the individual's coping resources. Thus, even if job stressors and burnout are considered strictly related, the relationship with job outcomes can be described in a different way: by an inverted U curve for the former, and as linear and negative in slope for the latter. The study demonstrated that role stressors have a significant effect on burnout, but burnout as a mediator helps to uncover the positive, 'eustress'-type effects of role stressors. As the authors note, the effect of job stress on behavioural outcomes for one part of the range (positive slope) is inconsistent with the second part (negative slope) (Singh et al., 1994).

Duquette et al., (1994). Nurses who used active coping strategies - e.g. discussing problems with others - had less stress and burnout than those nurses who used passive strategies, such as consumption of alcohol (Kandolin, 1993). The combination of coping strategies with other

buffering variables such as hardiness and social support was used to describe the process leading to burnout and mental ill-health as the result of workplace stressors.

Lawson, O'Brien (1994) where the burnout inventory has been administered and compared to data derived from observations. While self-reported questionnaires indicated a very low level of burnout for the three dimensions, observational data were telling a different story and one of the major common behavioral activity was the avoidance of contact with patients and negative customer interactions. The conclusion of the authors was that direct observation of behavior may tell more about burnout that can be gained from other sources. It should be mentioned that the observers involved in the research, for their nature of persons not foreigner in the workplace, may have reported prejudiced. Notwithstanding, it testify about the incommensurability of the information gathered from different sources.

Greenberg and Baron (1995) also proposed and tested a general stressor-strain model that can be interpreted in Lazarus' framework. In this model the moderators are the cognitive appraisal leading to stress and the last column contains the strain symptoms. The model was empirically supported by a study of Sin et al. (1995).

Beehr's (1995) warning that 'there is currently no accepted model of stress being used in the field' (p.50) is over. Researchers can take advantage by using established models. A true value can be found in Lazarus's transactional model that should be considered as a worthwhile theoretical framework, but can be difficult in its operationalization. On the other hand, Karasek's and Siegrist's models are relatively straightforward in their operationalization, but are in some way limited to understand the process of developing strain as result of stressful situations at work. For example, recent studies have questioned the dimensionality of Karasek's decision latitude factors and assessed the influence on work pressures, proposing work pressure as a mediating variable between job control and strain outcomes.

Graen, & Uhl-Bien, (1995) the Leader-Member exchange model should be studied in relation to Siegrist's model, to add information on the balance/imbalance process. The idea of balance as well as the effect of personality characteristics is also central in Warr's Vitamin Model (1994). The model is an extension of the P-E Fit model and the main idea is that mental health is affected

by job characteristics in a way that is analogous to the effect of vitamins on physical health: intake initially improves health and physical functioning, but beyond a particular level no further improvement is observed. Similarly, an abundance of desirable environmental features can have a negative impact on mental health.

Carayon, Yang, Lim (1995) demonstrated that the bi-variate relationship in the stress/strain process change over time. Different correlations in different points in time were detected between job design variables (job demands, job content, job control, social support and job future ambiguity) and worker strain (boredom, workload dissatisfaction, depression, tension-anxiety, anger, fatigue, daily life stress, health complaints) using a cross-sectional design. Canonical correlational analysis for three rounds of a longitudinal study suggested that a substantial relation- Literature review – Occupational stress and mental health 22 ship exists between job design and worker strain.

Moore and Cooper (1996) presented a theoretical overview of this subject. Findings indicate that although mental health professionals are subjected to similar organisational stressors as other workers, they experience additional emotional strain by the very nature of their professions in dealing with troubled persons often over extended periods of time (Nolan et al., 1995).

Fagen et al. (1996) also identified recent service changes in the mental health profession as being a significant cause of stress amongst mental health nurses. There has been a transition from the traditional hosptial based setting to the delivery of care in the community setting. Research indicates that community mental health nurses experience significantly higher level of stress than their ward based counterparts (Carson et al., 1995; Fagin et al., 1995).

Tsai (1997), who aimed to develop a checklist of indicators of occupational stress. The author adopt the transactional view that suggests that the sources of stress are interactive with one's personal reactions, and one's response to stress in its turn affects social functioning, morale and somatic health. Four comprehensive factors endorsed the interaction between work stressors and nurses, leading the author to the conclusion that the results support the theoretical premise that

nurse's work stress is the product of the interplay between the work setting, the patient's condition and the nurses' interpretation of these factors.

Osipow, (1998) supported the hypothesis that employees attending a training group exhibited improved rational/cognitive coping skills in the face of workrelated stress as measured by the Rational/Cognitive Coping subscale. The Job Content Questionnaire (Karasek, 1985; Karasek et al., 1998), in full or parts, has been widely and successfully used along the years to assess sources of job stress and their relation with mental health (Calnan, Wainwrigth, Forsythe, Wall, Almond, 2001; O'Connor, O'Connor, Daryl, Bundred, 2000a; O'Connor, O'Connor, Daryl, Bundred, 2000b; Soares, Lawoko, 2000; Tummers, Janssen, Landeweerd, Houkes, 2001; Rospenda, 2002; Cropley, Steptoe, Joekes, 1999). The JCQ is a self-administered instrument designed to measure social and psychological characteristics of the job. The first scales – decision latitude, psychological demands and social support – are used to measure high demands/low control/low support on job strain development. Other aspects of work demand assessed are physical demands and job insecurity.

Koopman et al. (1998) occupational role emerged as a mediator between stressful events and strain. People working in administrative staff positions have less flexibility in the job, and experience the greater distress in roles that increase the likelihood of coming into unavoidable contact with potentially violent patients. Psychiatrics female reported to be equal to corresponding physicians in work amount and stress, more satisfied but with poorer mental health (Frank et al., 2001). Different roles inside of the hospital didn't effect the stress/mental health pathway (Calnan et al., 2001).

Stansfeld, Fuhrer, Shipley, Marmot (1999) also confirmed Karasek and Siegrist models in a longitudinal study on civil servants using a three phases assessment and logistic regression analysis. The direction of causality confirmed the longitudinal relation between work characteristics and emergence of psychiatric disorders. High efforts in combination with low rewards and high job demands and Lack of support were associated with the increase of psychiatric disorder, as measured by the GHQ. In the longitudinal study aiming to examine the relationship between psychosocial factors at work (JCD/S model) and changes in depressive symptoms, taking into account self-esteem, hostility and type A behavior, Paterniti et al. (2002)

found an independent contribution by the two pattern of factors. Job stressors did effect the change in Depressive symptoms but the hierarchical linear regression analysis demonstrated an effect defined by personality.

Mino et al. (1999) in a longitudinal two-year cohort study found significant relationships between job stress (single item measure) and mental health and controlling for demographic characteristics. By the results of the multiple logistic regression analysis, some stressors were strictly related to the organization and this led to two different conclusions: the organizational workplace as source of stress, and the need of further studies to control the results in different organizations. Thus, this study confirm that job stress cause mental health problems. Two factors should be particularly controlled before to end up at the conclusion of value of longitudinal studies: the importance of the incomplete design and the lag time. One year, for example, can be a very long interval where people can suffer but also recovery themselves. It has also been claimed that none of the longitudinal study assess the potentiality of, e.g., depressive disorders in increase work stress or an improvement in mental health ameliorating the working conditions, as

Cropley et al. (1999) compared teachers with individuals with similar educational qualifications from a national survey and found that teachers experiencing high job strain are 5 times more likely to be screened positive for psychiatric morbidity. Also stress and mental health have received substantial attention in this period in relation to occupational or organizational changes

Vahtera et al. (2000) addressed the effects of downsizing on employees health and found that the interaction between job demands and social support, as well as the interaction between job control and social support predicted sickness absence, a facet of psychological illness. Sluiters (2001) demonstrated in a longitudinal study that workers were, on average, more distressed before a reorganization and shortly after the reorganization than at any other time. Also the topic of recovery from daily strains receives attention in studies. Recovery does lead towards decreases in levels of job stress and burnout and an increase in life satisfaction (Sluiter et al., 2001; Sonnentag, 2003).

Soares, Lawoko, (2000) found aggression is usually associated with poor physical working environment, poor psychological climate   and has an impact on both: stressful working conditions and the outcomes in terms of psychological health.

Sluiter et al. (2001) is that the levels of change in strain during reorganization, is similar to the change in blood pressure. Bekker et al. (2000) examined both self-reported health and stress and cortisol levels, a physiological indicator of stress and reported intergroup differences for the self-reported measures but no systematic group differences with regard to physiological stress.

Tyssen et al., (2001) conducted in a nationwide representative sample of medical students, with data collection at two points in time with one year of interval, it was hypothesized that stressful working conditions were related to the occurrence of suicidal thoughts. In this study the researchers controlled for mental distress (depression and anxiety), personality and other possible predictors. Cross-sectional analysis showed that work related stress failed to predict suicidal thoughts when mental distress was entered in the model. Also at T2 the effects of job stress, vulnerability and not being married/cohabitant seem to disappear when mental distress was entered. Suicidal planning at T2 was predicted by mental distress and job stress. Mental distress and job distress failed to account for the change in the two periods of time. Job stress is related to mental health problems and need for treatment. The individual's perception (and appraisal) of work-related stress, in line with Lazarus' theory, is a stronger predictor of mental distress than objective measurements (Tyssen et al., 2000).

Tummers et al. (2001) demonstrated that high workload (high demand/low control) and limited social support lead to increased levels of Emotional Exhaustion. Another partial confirmation of Karasek model as predictor of mental health can be found in Sluiter et al's. (2001) study.

Van der Hulst et al. (2001) tested the importance of rewards and external pressure to work overtime as moderator variables between working overtime and psychological health and burnout. In low reward conditions both groups of subjects, those working and not-working overtime, showed risk of burnout, poor recovery and workfamily interference, and also home/work interference. The same results were found when controlling for external pressure to

work overtime with psychosomatic health complaints. Moderately long working weeks are not necessarily associated with adverse psychological health, even if pressure to work overtime is high, as long as job rewards are high. In other words, as long as there is a healthy balance between the effort invested at work and the rewards that are received in return (in terms appreciation, job security and career development, but also an adequate salary)

Tennant, (2001); nonetheless it does demonstrate well established and significant relationships to psychological health status and depression in particular. Burnout has been somewhere measured as a construct describing mental health, other times as an antecedent of psychological health or a consequent. It has also been defined as an inappropriate response to the challenge of work, and associated with poor performance and ill-health (Turley et al., 1993). A different hypothesis testing the role of burnout as mediator between stress and job satisfaction has been tested (Singh, Goolsby, Rhoads, 1994).

Seibert, Kreimer (2001) should be taken and adopt a more holistic personality framework when studying the effect of personality to occupational wellbeing. Involvement in the three domains – job, parental, marital – appeared as reducing both distress and level of depression (Vinokur, Pierce, Buck, 1999). Job involvement selected with burnout as an outcome variable depending both on stress, showed a different pattern from the latter: while burnout is in the study considered as stress-related variables mainly predicted by workload and social support, job involvement is here considered as person-level variable and partially independent from work characteristics (Tummers, Janssen, Landeweerd, Houkes, 2001). It should be also mentioned that job involvement is usually considered as organizational climate's factors, therefore in contrast with the previous result. When the Ward Atmosphere Scale (WAS, Moos, Houts, 1968; Moos, 1989) addressing the individual's opinions, feelings and perceptions of central characteristics of the ward milieu has been used, the feeling of burnout improved after some training as a cause of improved work environment (Smoot, Gonzales, 1995; Finnoy, 2000).

Kivimaki et al. (2002) study about organizational justice and mental health. The baseline mental health must always be measured to assess the potentiality of stress to lead to ill mental health. Also after a period of absence from work for mental ill-health and adequate recovery, the person

can experience better working conditions, but if this period of absence continue with maybe only bureaucratic reasons or lack of support, the situation could completely change. As for the method of data analysis, it is obvious that regression-based methods are more powerful than correlational but the use should always be defended by a logic and evidencebased platform.

Paterniti et al. (2002) found substantial longitudinal correlation between job stressors and change in depression measured by the mean of the Center for Epidemiological Studies' Depression Scale (CES-D), a 20-item self-report questionnaire (Mackie, Holdhan, Gottlieb, 2001) and Mackie et al. (2001) a cross-sectional correlation.

Stansfeld (2002) discussed the previous studies under the framework of Karasek and Siegrist models and the usefulness of research data for management of the organization. Also speculation, but with a different aim, in Adler et al. (1999) and U'Ren et al. (1999) articles interested in the discussion of the legal outcomes of the stress/strain process. As we have already noted, in the bulk of articles it is hard to say that a new theory has been displaced, but it is more correct to argument that a few theoretical models have been tested by research-based evidence.

Williams et al., (2002) have been lamenting for two problems that they think should be addressed, and that also constitute an important matter of differentiation among the wide literature: the design of the research and the method of data collection. For the method of data gathering, the major approach has been the collection of information by self-report measures.

Kirkcaldy, Trimpop, Levine, (2002); Tomasulo, (2002) found relations between accidents and workrelated stressors, as working long hours, and reduced well-being appear to be hard to demonstrate, while factors related to work content appeared to have some influence, such as having to deal with abused patients. Traumatic episodes related to work may be a turning point in people's life, and the response can either be adaptive or maladaptive, and subsequently lead to psychopathology (Wollman, 1993).

Rospenda, (2002) Interpersonal relationships have been demonstrated to be a significant antecedent of the stress/strain process when they are characterized by behaviour that is harassing

or abusive. Thus harassment is seen as a possible job stressor, like as psychological demands and decision latitude, and affecting mental health. But also when workers are experiencing lack 11 of social support and lack of control over decisions, this can lead to psychological traumas (Denton et al., 2002).

Demerouti et al.,(2002), a measure of burnout in human services and industrial production, assess two distinctive factors: Exhaustion and Disengagement. While burnout has been empirically demonstrated as a long-term, habitual experience and as a construct different than short-term strain work consequences, it has been also considered as a consequence of specific short-term strain effects deriving from the organizational job design. Short-term strain act therefore as intermediate outcomes or mediators in the burnout-job design linkage model (Demerouti et al., 2002).

Karasek's (2002) findings revealed to employers that they could improve job-related mental health without sacrificing productivity. That is, organizations could reduce job strain by increasing employee control or decision latitude, without reducing actual workload. Employers could fine-tune their administrative structure in order to reduce employee stress and protect workers' mental health - without cutting productivity. What's more, the Hackman and Oldham research showed how control influences feelings about work more broadly. And in fact, a 2002 survey of 604 employees by the Society for Human Resource Management and *USA Today* revealed that some 94 percent of those polled consider autonomy and independence "very important" or "important" to job satisfaction.

Edwards and Burnard (2003) found that the most frequently reported souces of stress amongst mental health nurses were administrative and organisational concerns, client-related issues, heavy workload, interpersonal conflict, financial and resource issues, professional self-doubt, home/work conflict, staffing levels, changes in the health service, maintenance of standards and poor supervision. Findings from a systematic review on occupational stress in psychiatrists (Fothergill et al., 2004) indicate that psychiatrists also experience significant levels of stress. Specific stressors 10 included overwork, management and resource issues, personal stresses, lack of time, organisational changes, lack of administrative support and low pay.

Jenkins & Elliott (2004), found that although many of the stressors 9 experienced by mental health professionals are similar to other health care specialities, a number of demands relate specifically to the mental health profession. These include the intense nature of interaction between the client/mental health professional relationship (Cronin-Stubbs & Brophy, 1985), dealing with difficult and challenging behaviour on a regular basis (Sullivan, 1993), and service changes in the mental health profession.

Amir Shani and Abraham Pizam(2009) found ―work-Related Depression among Hotel Employees‖ have conducted a study on the depression of work among hotel employees in Central Florida. They have found that, incidence of depression among workers in the hospitality industry by evaluating the relationship between the occupational stress and work characteristics.8 5)

Viljoen and Rothmann, (2009). found that organizational stressors contributed significantly to ill health and low organizational commitment. Stress about job security contributed to both physical and psychological ill health. Low individual commitment to the organization was predicted by five stressors, such as Work-life balance, Overload, Control, Job aspects and Pay.

Kayoko Urakawa and Kazuhito Yokoyam in their work on ―Sense of Coherence (SOC) (2009) found the result i.e. adverse effects on mental health due to the job demand and job stress was positively associated with SOC, the mental health status of males in managerial work was adversely negative, where as it was positive among the female co-workers. Finally they found that, SOC is an important factor determining the coping ability over the job stress for both the genders.12 9)

Objective 1;
(i) To explore the developing factors of Occupational stress with the Models Developed earlier and their findings and fitness in the context of work atmosphere;
Some of the models developed later in the area of Occupational studies states that stress results from the complex interactions between a large system of interrelated variables, there are several psychological theories and models that address occupational stress.

• **Person Environment Fit Model** which suggests that the match between a person and work environment is key in influencing attitudes, skills, abilities resources match,demands of the

job, and that work environment. Lack of fit in either of these domains can cause problems, and the greater the gap or misfit (either subjective or objective) between the person and their environment, the greater the strain as demands exceed abilities. These strains can bring in health related issues, lower productivity, and other work problems including defense mechanisms, such as denial, reappraisal of needs, and coping, to try and reduce subjective misfit.

- **Job Characteristics Model** focuses on skill variety, task identity, task significance, autonomy, and feedback. These characteristics are proposed to lead to 'critical psychological states' of experienced meaningfulness, and experienced responsibility and knowledge of outcomes. It is proposed that positive or negative work characteristics give rise to mental states which lead to corresponding cognitive and behavioral outcomes, e.g. motivation, satisfaction, absenteeism, etc.

- **Diathesis-Stress Model**: distinguishes stressful job conditions or stressors from an individual's reactions or strains. Strains can be mental, physical or emotional. Occupational stress can occur when there is a discrepancy between the demands of the environment/workplace and an individual's ability to carry out and complete these demands. Often a stressor can lead the body to have a physiological reaction that can strain a person physically as well as mentally. A variety of factors contribute to workplace stress such as excessive workload, isolation, extensive hours worked, toxic work environments, lack of autonomy, difficult relationships among coworkers and management, management bullying, harassment and lack of opportunities or motivation to advancement in one's skill level.

- **Jobs-Demand Resources Model**: states that imbalance between demands of one's job the physical, psychological, social, or organizational aspects of a job that require sustained physical and/or psychological effort or skills. Therefore, they are associated with expenditure of time and energy. **Job resources like** the physical, psychological, social, or organizational aspects of the job that aid in achieving work goals; reduce job demands and the associated physiological and psychological cost; stimulate personal growth, learning, and development.

- **Effort-Reward Imbalance Model** focuses on the reciprocal relationship between efforts and rewards at work. the ERI Model claims working hard without receiving adequate appreciation or being treated fairly are examples of a stressful imbalance. Another assumption of the ERI Model in the experience of effort-reward imbalance is assumed that employees characterized by a motivational pattern of excessive job-related commitment and a high need for

approval (i.e., over commitment) will respond with more strain reactions, to an effort-reward imbalance, in comparison with less overcommitted people.

- **Sources of occupational stress come from:** a toxic work environment, negative workload, isolation, types of hours worked, role conflict & role ambiguity, lack of autonomy, career development barriers, difficult relationships with administrators and/or coworkers, managerial bullying ,towing to the wrong gates[,, harassment, and organizational climate. These individual sources demonstrate that stress can occur specifically when a conflict arises from the job demands of the employee and the employee itself. If not handled properly, the stress can become distress.

- **Coping** the ability of the employee coping with the specific hours shows that night shifts in particular have a high possibility of negative impact towards the health of the employee.

Objective; (ii) To examine the impact of Occupational Stress factors in organisation life .
Role of the organization creating occupational stress are; Career development including security of their occupation, promotion levels, etc. are all sources of stress, as this business market in terms of technology of economic dominance is ever-changing. **Interpersonal relationships** within the workplace: The workplace is a communication and interaction based industry. These relationships (either developed or developing) can be problematic or positive. Common stressors include harassment, discrimination, biased opinions, hearsay, and other derogatory remarks. **Organizational climate or structure**: The overall communication, management style, and participation among groups of employees are variables to be considered. In essence, the resultant influence of the high participation rate, collaborative planning, and equally dispersed responsibilities provides a positive effect on stress reduction, improved work performance, job satisfaction, and decreased psychosomatic disorders.

Objective; (iii) To analyse the importance of leadership roles to avert occupational stress.
Leaders must solve or atleast should have answers for important aspects as; Leaders must have understand on stress-related hazards at work; Stress related hazards at work can be divided into work content and work context. The leaders must understand that work contents includes - job content (monotony, under-stimulation, meaningless of tasks, lack of variety, etc) - work load and work pace (too much or too little to do, work under time pressure,

etc.) - working hours (strict or inflexible, long and unsocial, unpredictable, badly designed shift systems) - Participation and control (lack of participation in decision-making, lack of control over work processes, pace, hours, methods, and the work environment) Work context includes - career development, status and pay (job insecurity, lack of promotion opportunities, under- or over-promotion, work of 'low social value', piece rate payment schemes, unclear or unfair performance evaluation systems, being over- or under-skilled for a job) - role in the organization (unclear role, conflicting roles) - interpersonal relationships (inadequate, inconsiderate or unsupportive supervision, poor relationships with colleagues, bullying/harassment and violence, isolated or solitary work, etc) -organizational culture (poor communication, poor leadership, lack of behavioural rule, lack of clarity about organizational objectives, structures and strategies) - work-life balance (conflicting demands of work and home, lack of support for domestic problems at work, lack of support for work problems at home, lack of organizational rules and policies to support work-life balance).
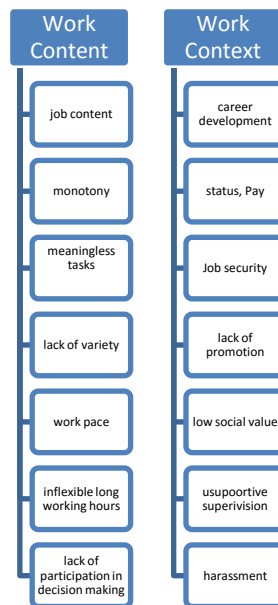

Figure 3 Differentiating Work Content and Work Context; Adapted by Dr.C.Karthikeyan

Leadership levels should have a thorough understanding what is a healthy working environment;Leaders should create a healthy work environmnet or climate where the pressures on employees are appropriate in relation to their abilities and resources, less control, more support, and must understand that 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.   The leaders need to conntinuously assess the risks to health, the provision of appropriate information and training on health issues . **Leaders knowing about work-related stress ;** Work-related stress is worse when employees feel they have little support from supervisors and colleagues, as well as little control over work processes.There is often confusion between pressure or challenge and stress and sometimes it is used to excuse bad management practice. Excessive Pressure at the workplace is unavoidable due to the demands of the contemporary work environment. Work-related stress can be caused by poor work organisation (the way jobs and work systems, and the way it is managed), by poor work design (for example, lack of control over work processes), poor management, unsatisfactory working conditions, and lack of support from colleagues and supervisors. Leaders must take note of the above and be alert on these factors. **Increasing knowledge of work-related stress and its scientific evidence-base of risk factors, prevention and cost; though w**ork-related stress is still an evasive concept to many, although the topic is covered in hundreds of papers published every year. The seminar will focus on the main evidence of risk factors extracted from existing research, as concerns in particular work-related stress interventions and related costs.   **Leader's recognition and respect at work is a fundamental need to show humility to workmen which in turn reduces stress;** workers getting respected and appreciated by leaders is one of the most fundamental human needs, being appreciated is one of the most important factors that increases motivation and satisfaction as well as health and well-being.

Leaders need to be aware of the Causes and Management of Stress at Work; Stress due to time limited events, pressures of work deadlines, family demands, job insecurity, or long commuting journeys. Managing stress shall be by providing resources that help meet the pressures, include personal characteristics such as coping skills (for example, problem solving, assertiveness, time management) and the work situation such as a good working environment and social support. It can be increased by increasing investments in work infrastructure, training,

good management and employment practices, and the way that work is organised. Good employment practice includes assessing the risk of stress amongst employees. This involves: looking for pressures at work which could cause high and long lasting levels of stress, deciding who might be harmed by these, deciding whether you are doing enough to prevent that harm. **Leaders awareness of how Stress is Caused;** stress experienced depends on the functioning of two protective physiological mechanisms: **"Alarm reaction**". While confronting a threat to our safety, our first response is physiological arousal: our muscles tense and breathing and heart rate become more rapid. This serves us well when the threat is the proverbial bull in the field rushing towards us. We either fight or flee. Present day threats tend to be more psychological—for example, unjustified verbal attack by a superior at work. It is usually not socially acceptable to act by "fight or flight", and an alternative means of expressing the resultant emotional and physical energy is required. **Leaders awareness on the work Place Factors Causing Stress;** workplace is an important source demands and pressures causing stress, workplace factors that have been found to be associated with stress and health risks can be categorised as those that are intrinsic to the job include long hours, work overload, time pressure, difficult or complex tasks, lack of breaks, lack of variety, and poor physical work conditions (for example, space, temperature, light). Demarcating the unclear work or conflicting roles and boundaries for job development are important buffers. Creating a culture of involving people in decisions, keeping them informed about what is happening in the organisation, and providing good amenities and recreation facilities reduce stress. Leader's understanding on the workload; dealing with workload can be stressful and serve as a stressor for employees. There are three aspects of workload that can be stressful. Quantitative workload or overload: Having more work to do than can be accomplished comfortably. Qualitative workload: Having work that is too difficult. Underload: Having work that fails to use a worker's skills and abilities. **Leaders role in averting bullying; leaders must take care not to allow bullying** in the workplace can also contribute to stress. This can be broken down into five different categories;Threat to profession status,Threat to personal status, Isolation,Excess work.

Leaders must understand the Psychological aspects of Occupational Stress like; **Destabilization** i.e. lack of credit for work, meaningless tasks etc. This in effect can create a hostile work environment for the employees that, which in turn, can affect their work ethic and

contribution to the organization. **Workplace conflict**; Interpersonal conflict, such as role conflict, role ambiguity, and workload, strains such as anxiety, depression, physical symptoms, and low levels of job satisfaction. **Sexual harassment**; High levels of harassment were related to the worst outcomes, and no harassment was related to least negative outcomes. In other words, women who had experienced a higher level of harassment were more likely to perform poorly at workplaces. **Occupational group; Lower** occupational groups are at higher risk of work-related ill health than higher occupational groups. This is in part due to adverse work and employment conditions. Furthermore, such conditions have greater effects on ill-health to those in lower socio-economic positions. **Leaders role in Prevention**; leaders need to combine organizational change and stress management for preventing stress at work. Both organizations and employees can employ strategies at organizational and individual levels. Getting a realistic job preview to understand the normal workload and schedules of the job will also help people to identify whether or not the job fit them. Design jobs to provide meaning, stimulation, and opportunities for workers to use their skills, Clearly define workers' roles and responsibilities, Improve communications-reduce uncertainty about career development and future employment prospects. Provide opportunities for social interaction among workers. Establish work schedules that are compatible with demands and responsibilities outside the job. Combat workplace discrimination (based on race, gender, national origin, religion or language). Bringing in an objective outsider such as a consultant to suggest a fresh approach to persistent problems. Introducing a participative leadership style to involve as many subordinates as possible to resolve stress-producing problems. Encourage work-life balance through family-friendly benefits and policies

Leaders awareness on interactions of Work and Home Stress ; The huge and inevitable work demands like long, uncertain or unsocial hours, working away from home, taking work home, high levels of responsibility, job insecurity, and job relocation all may adversely affect family responsibilities and leisure activities. Thus, a vicious cycle is set up in which the stress caused in either area of one's life, work or home, spills over and makes coping with the other more difficult. Women are especially likely to experience in order to accommodate domestic responsibilities, and may suffer discrimination and harassment. **Leaders can learn and disseminate knowledge of Individual Stress Management:** Individual approaches include

training and one-to-one psychology services—clinical, occupational, health or counselling. After analysing the situation and developing an active plan to minimise the stressors, learning skills of active coping and relaxation, will boost self confidence and motivation to continue. A wide variety of training courses may help in developing active coping techniques—for example, assertiveness, communications skills, time management, problem solving, and effective management. The primary aim of the individual approach should be to develop people's skills and confidence to change their situation, not to help them adapt to and accept a stressful situation. **Leaders can learn and disseminate knowledge of Organisational Stress Management;** The prevention and management of workplace stress requires organisational level interventions, because it is the organisation that creates the stress. An approach that is limited to helping those already experiencing stress is analogous to administering sticking plaster on wounds, rather than dealing with the causes of the damage. An alternative analogy is trying to run up an escalator that's going down! Organisational interventions can be of many types, ranging from structural (for example, staffing levels, work schedules, physical environment) to psychological (for example, social support, control over work, participation).The emphasis on the organisation, rather than the individual, being the problem is well illustrated by the principles used in Scandinavia, where there is an excellent record of creating healthy and safe working environments . Leaders in any capacity ss a board member, enterprise owner, Chief Executive, business manager or professional, must resolve the situation (occupational stress) troubling the business entity and its people, with specific actions and activities. The current model of living is based more and more on competition, technology, open markets and profit at all costs, and less on harmony, peace (in a true sense) and moral values.

Objective (iv) To evaluate the work relationship models that serves to reduce Occupational Stress with its application and to suggest possible solutions;

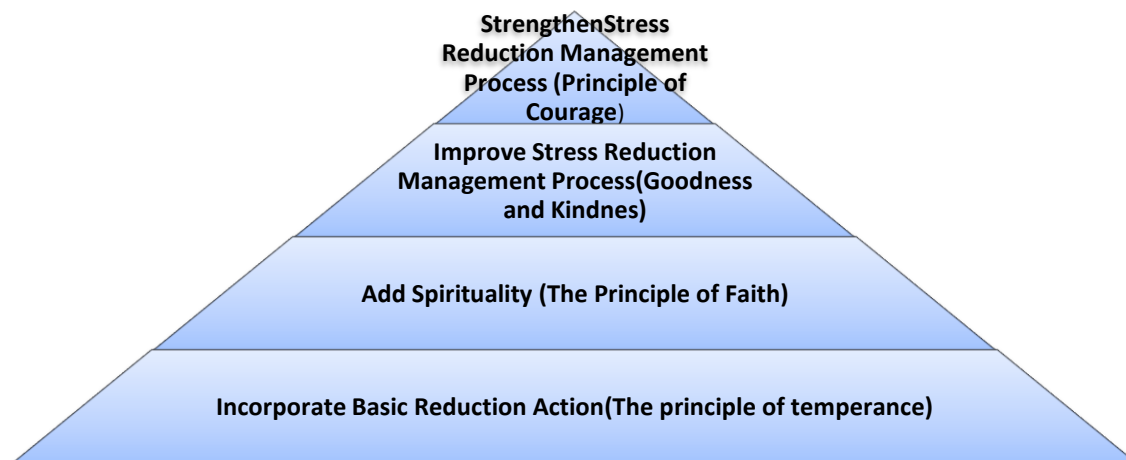**Using Demand-control model in Organisational Setting**

The demand-control model combines low work-related decision latitude (i.e., autonomy and control over the job) and high workloads (high levels of work demands) can be particularly harmful to workers (they can lead to "job strain," a term representing the combination of low decision latitude and high workload leading to poorer mental or physical health). This model recommends two broad forms: 'skill discretion' and 'decision authority'. Skill discretion (work

related skills of employees) refers to the level of skill and creativity required on the job and recommends freedom for the employee in deciding what skills to use (e.g. opportunity to use skills, similar to job variety) as per the capacity . Decision authority refers to employees being given freedom to decide about their work (e.g., having autonomy). These two forms of job control are traditionally assessed together in a composite measure of decision latitude which can be used and tested, and it may partially benefit both the organization and employees.

Effort-reward imbalance model

One of the practicable and emerging areas for motivation of employees by (occupational health psychology) OHP research is the effort-reward imbalance (ERI) model. It connects both job demands to the rewards employees receive for the job. That model holds that high work-related effort coupled with low control over job-related intrinsic (e.g., recognition) and extrinsic (e.g., pay) rewards triggers high levels of activation in neuro-hormonal pathways that, cumulatively, are thought to exert adverse effects on mental and physical health.

Occupational Stress Management Approach; This approach (The Occupational Stress Management and Reduction Approach, termed 'The OCCUP Stress Approach') which contains the seven principles of Seven Principles Stress Reduction Strategies; Each strategy of 'The OCCUP Stress Approach' contains a business action plan with several actions, policies and ancient Greek wisdom sayings. The four stress-reduction strategies are:

StrengthenStress Reduction Management Process (Principle of Courage)

Improve Stress Reduction Management Process(Goodness and Kindnes)

Add Spirituality (The Principle of Faith)

Incorporate Basic Reduction Action(The principle of temperance)

Figure; 4; The "OCCUP" Stress Approach "concept by; Richard Hackman and Greg Oldham from Greek Wisdom Sayings; Source; Dr.C.Karthikeyan

- **Strategy 1**: Incorporate Basic Stress Reduction Actions into your Business Operations This strategy describes the role of the first principle (the Principle of Temperance) of 'The OCCUP Stress Approach'.

- **Strategy 2**: Add Spirituality to your Basic Stress Reduction Actions This strategy describes the role of the second principle (Faith) of 'The OCCUP Stress Approach'.

- **Strategy 3**: Improve your Stress Reduction Management Process with Better Relationships This strategy describes the role of the Principles of Justice, Harmony, Friendship and Kalokagathia (Goodness and Kindness) the third, fourth, fifth and sixth principles of 'The OCCUP Stress Approach'.

- **Strategy 4**: Strengthen your Stress Reduction Management Process with More Robustness
This strategy describes the role of the Principle of Courage the seventh principle of 'The OCCUP Stress Approach'.

Occupational Stress and Employee Control; Employee control over work can reduce stress and enhance motivation and growth. Several key findings have prompted employers to search for ways to give workers a greater sense of control, to improve health, productivity and morale.

Practical Application; Many organizations have increased employee control to make jobs better for employees, often redesigning their processes or flipping around the chain of command. For example, Ford Motor Company has shifted virtually all of its manufacturing operations to a team-based approach in which employees have far greater control over their work. Rather than simply follow directions from supervisors, employees can, for example, talk directly to suppliers about parts quality, research better ways to run equipment, and take independent action to eliminate product defects. he pilot program, which began at Ford's Romeo, Mich. engine plant in the early 1990s, raised productivity and quality along with job satisfaction so successfully that Ford expanded the approach, giving virtually all employees targets and allowing them to find ways to reach them.

Recommendations of Control of Occupational Stress from Occupational Health Psychology (OHP) Experts are;

There is no 'one size fits all' solution to manage occupational stress. No common single method works for everyone or in every situation, so the organization and the individuals must experiment with different techniques and strategies and the best is to focus on what makes you and your business organization feel calm and in control. **Still this area has scope for enormously for further research with different designs.**

References

1.   Hart, P.M. (1999). "Predicting employee life satisfaction: a coherent model of personality, work and nonwork experiences, and domain satisfactions". Journal of Applied Psychology. **84** (4): 564–584. doi:10.1037/0021-9010.84.4.564.

2.   Cooper, C.L. (Ed.) Mark, G.M, and Smith, Andrew Paul. 2008. Stress models: a review and suggested new direction. Occupational Health Psychology, European Perspectives On Research, Education and Practice, vol. 3. Nottingham: Nottingham University Press, pp. 111-144.

3.   http://psycnet.apa.org/psycinfo/2002-13306-001[full citation needed]

4.   Hart, P.M. & Cooper, C.L. (2001). Occupational Stress: Toward a More Integrated Framework. In N. Anderson, D.S. Ones, H.K. Sinangil, & C. Viswesvaran (Eds), Handbook of Industrial, Work and Organizational Psychology (vol 2: Personnel Psychology). London: Sage.[page needed]

5.   Beehr, T. (1998). An organizational psychology meta-model of occupational stress. In C. L. Cooper (Ed.). Theories of organizational stress. (pp. 6-27). Oxford, UK: Oxford University Press.

6.   NIOSH (1999). Stress at Work. U.S. National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication Number 99-101.

7.   Henry, O. & Evans, A.J. (2008). "Occupational Stress in Organizations". Journal of Management Research. **8** (3): 123–135.

8.   Colligan, Thomas W; Colligan MSW; Higgins M. (2006). "Workplace Stress - Etiology and Consequences" (PDF). Journal of Workplace Behavioral Health. **21** (2): 89–97. doi:10.1300/J490v21n02_07.

9.   Balducci, Cristian; Schaufeli, Wilmar B.; Fraccaroli, Franco (2011-08-01). "The job demands–resources model and counterproductive work behaviour: The role of job-related

affect". European Journal of Work and Organizational Psychology. **20** (4): 467–496. doi:10.1080/13594321003669061. ISSN 1359-432X.

10.   de Jonge, Jan. "Effort-Reward Imbalance Model".

11.   MedlinePlus Encyclopedia Acute respiratory distress syndrome

12.   Naghieh, Ali; Montgomery, Paul; Bonell, Christopher P; Thompson, Marc; Aber, J Lawrence; Naghieh, Ali (2015). "Organisational interventions for improving wellbeing and reducing work-related stress in teachers". The Cochrane Database of Systematic Reviews. **4**: CD010306. doi:10.1002/14651858.CD010306.pub2. PMID 25851427.

13.   Princeton Survey Research Associates [1997]. Labor day survey: state of workers. Princeton, NJ: Princeton Survey Research Associates.

14.   http://www.stress.org/workplace-stress/#sthash.Mep5bsfR.dpuf

15.   Dopkeen, Jonathan, Dubois, Renee (2014). "Stress in the Workplace: A Policy Synthesis on Its Dimensions andPrevalence" (PDF). horizontal tab character in |title= at position 51 (help)

16.   "NIOSH Work Organization and Stress Related Disorders". United States National Institute for Occupational Safety and Health. Retrieved 2007-12-01.

17.   Paul Fire and Marine Insurance Company [1992]. American workers under pressure technical report. St. Paul, MN: St. Paul Fire and Marine Insurance Company.

18.   Ruotsalainen JH, Verbeek JH, Mariné A, Serra C (2014). "Preventing occupational stress in healthcare workers". The Cochrane Database of Systematic Reviews. **12**: CD002892. doi:10.1002/14651858.CD002892.pub4. PMID 25482522.

19.   Sauter S, Hurrell J, Murphy L, Levi L [1997]. Psychosocial and organizational factors. In: Stellman J, ed. Encyclopaedia of Occupational Health and Safety. Vol. 1. Geneva, Switzerland: International Labour Office, pp. 34.1-34.77.

20.   Roberts, Rashaun; Grubb, Paula L.; Grosch, James W. (June 25, 2012). "Alleviating Job Stress in Nurses". NIOSH: Workplace Safety and Health. Medscape and NIOSH.

21.   Goetzel, RZ, Anderson, DR, Whitmer, RW, Ozminkowski, RJ, Dunn, RL, Wasserman J [1998]. The relationship between modifiable health risks and health care expenditure: An analysis of the multi-employer HERO health risk and cost database. J Occup Environ Med 40:843-854.

22.   NIOSH [2001]. NIOSH Worker Health Chartbook. National Institute for Occupational Safety and Health, Pub. No. 2004-146.

23.   Primm, Dave (2005). "What workplace stress research is telling technical communicators". Technical Communication. **52** (4): 449–55.

24.   Desmarais, S. & Alksnis, C. (2005). Gender issues. In J. Barling, E. K. Kelloway, & M. R. Frone (Eds). Handbook of work stress. (pp. 455-485). Thousand Oaks, CA: Sage

25.   "Workplace Stress Greater For Women". OfficePro. Aug/Sep 2010; 70, 5; ProQuest. pg.8"Ten Years of Working Conditions in the European Union, 2005". European Foundation for the Improvement of Living and Working Conditions. Retrieved 2007-12-01.

26.   Katz, D., & Kahn, R. L. (1978). The social psychology of organizations 2ed. New York City: John Wiley.

27.   Karasek, R. A. (1979). "Job demands, job decision latitude, and mental strain-implications for job redesign". Administrative Science Quarterly. **24** (2): 285–308. doi:10.2307/2392498.

28.   Johnson, J. V.; Hall, E. M. (1988). "Job strain, work place social support, and cardiovascular disease: A cross-sectional study of a random sample of the Swedish working population". American Journal of Public Health. **78** (10): 1336–1342. doi:10.2105/ajph.78.10.1336.

29.   Demerouti, E.; Bakker, A. B.; Nachreiner, F.; Schaufeli, W. B. (2001). "The job demands-resources model of burnout". Journal of Applied Psychology. **86** (3): 499–512. doi:10.1037/0021-9010.86.3.499.

30.   "Report on the American Workforce". United States Department of Labor, Bureau of Labor Statistics. Retrieved 2007-12-01.

31.   Jacobs JA, Gerson K [2004]. The time divide: Work, family, and gender inequality. Cambridge: Harvard University Press.

32.   http://www.bohrf.org.uk/downloads/cmh_rev.pdf.

33.   Rhodes, C. R.; Pullen, A. P.; Margaret, H. M.; Clegg, S. R. C.; Pitsis, A. P. (2010). "Violence and workplace bullying: What are an organizational's ethical responsibilities?.". Administrative Theory. **32** (1): 96–115. doi:10.2753/atp1084-1806320105.

34.   Thomas D Narcissism: Behind the Mask (2010)

35.   Boddy, C. R. Corporate Psychopaths: Organizational Destroyers (2011)

36.	Keenan, A.; Newton, T. (1985). "Stressful events, stressors and psychological strains in young professional engineers". Journal of Occupational Behaviour. **6** (2): 151–156. doi:10.1002/job.4030060206.

37.	Liu, C.; Spector, P. E.; Shi, L. (2007). "Cross-National Job Stress: A Quantitative and Qualitative Study". Journal of Organizational Behavior. **28** (2): 209–239. doi:10.1002/job.435.

38.	Bowling, N. A.; Beehr, T. A. (2006). "Workplace harassment from the victim's perspective: A theoretical model and meta-analysis". Journal of Applied Psychology. **91** (5): 998–1012. doi:10.1037/0021-9010.91.5.998.

39.	Gyllensten, K. (2005). "The role of gender in workplace stress: A critical literature review". Health Education Journal. **64** (64 (3)): 271–288. doi:10.1177/001789690506400307.

40.	http://health-gradient.eu/wp-content/uploads/2015/02/DRIVERS_WP3_Fair_Employment_Final_Report.pdf

41.	Jex, S. M. (1998). Stress and job performance: Theory, research, and implications for managerial practice. Thousand Oaks, CA: Sage.

42.	Burns, Richard A.; Butterworth, Peter; Anstey, Kaarin J. (2016-05-01). "An examination of the long-term impact of job strain on mental health and wellbeing over a 12-year period". Social Psychiatry and Psychiatric Epidemiology. **51** (5): 725–733. doi:10.1007/s00127-016-1192-9. ISSN 1433-9285. PMID 26875152.

43.	Brynien, Igoe 2006

44.	Teasdale, Eric L. (2006). "Workplace stress". Psychiatry. **5** (7): 251–4. doi:10.1053/j.mppsy.2006.04.006.

45.	Bromet, Evelyn J.; Dew, Mary Amanda; Parkinson, David K.; Cohen, Shelly; Schwartz, Joseph E. (1992). "Effects of occupational stress on the physical and psychological health of women in a microelectronics plant". Social Science & Medicine. **34** (12): 1377–83. doi:10.1016/0277-9536(92)90146-H. PMID 1529375.

46.	Tsutsumi, Akizumi; Kayaba, Kazunori; Kario, Kazuomi; Ishikawa, Shizukiyo (2009). "Prospective Study on Occupational Stress and Risk of Stroke". Archives of Internal Medicine. **169** (1): 56–61. doi:10.1001/archinternmed.2008.503. PMID 19139324.

47.   Kuehnl, Andreas; Rehfuess, Eva; von Elm, Erik; Nowak, Dennis; Glaser, Jürgen; Kuehnl, Andreas (2014). "Human resource management training of supervisors for improving health and well-being of employees". Cochrane Database of Systematic Reviews: CD010905. doi:10.1002/14651858.CD010905.

48.   Sauter, Steven L.; Murphy, Lawrence R.; Hurrell, Joseph J. (1990). "Prevention of work-related psychological disorders: A national strategy proposed by the National Institute for Occupational Safety and Health (NIOSH)". American Psychologist. **45** (10): 1146–58. doi:10.1037/0003-066X.45.10.1146. PMID 2252233.

49.   WORKPLACE STRESS: Show your commitment. (2008). Employee Benefits, (13668722), S.13-S.13. http://search.proquest.com/docview/224697345

50.   Bittel, Lester R. Management Skills for Success. Alexander Hamilton Institute Incorporated, 1984. Print.

51.   Jones, John W.; Barge, Bruce N.; Steffy, Brian D.; Fay, Lisa M.; Kunz, Lisa K.; Wuebker, Lisa J. (1988). "Stress and medical malpractice: Organizational risk assessment and intervention". Journal of Applied Psychology. **73** (4): 727–35. doi:10.1037/0021-9010.73.4.727. PMID 3209582.

52.   Gajendran, Ravi; Harrison, David (2008). "Telecommuting Win-Win For Employees And Employers". Journal of Applied Psychology. **92** (6): 5–5. doi:10.1037/0021-9010.92.6.1524.

53.   Ruotsalainen, Serra, Marine, Verbeek (2008). "Systematic review of interventions for reducing occupational stress in health care workers". Scandinavian Journal of Work, Environment & Health. **34**: 169–178. doi:10.5271/sjweh.1240.

54.   "Stress at Work: Tips to Reduce and Manage Job and Workplace Stress". www.helpguide.org. Retrieved 2015-10-29.

55.   Gura, Shira Taylor (2002-01-01). "Yoga for stress reduction and injury prevention at work". Work (Reading, Mass.). **19** (1): 3–7. ISSN 1051-9815. PMID 12454346.

56.   Chiesa, Alberto; Serretti, Alessandro (2009-05-01). "Mindfulness-Based Stress Reduction for Stress Management in Healthy People: A Review and Meta-Analysis". The Journal of Alternative and Complementary Medicine. **15** (5): 593–600. doi:10.1089/acm.2008.0495. ISSN 1075-5535.

60. Lencioni, Patrick (2002). The Five Dysfunctions of a Team. Jossey-Bass. ISBN 978-0787960759.

61. Barling, J., Kelloway, E. K., & Frone, M. R. (Eds.) (2005). Handbook of work stress. Thousand Oaks, CA: Sage.

62. Butts, M.; DeJoy, D.; Schaffer, B.; Wilson, M. & Vandenberg, R. (Apr 2009). Individual Reactions to High Involvement Work Processes: Investigating the Role of Empowerment and Perceived Organizational Support. Journal of Occupational Health Psychology, 14(2), 122-136,

63. Cooper, C. L. (1998). Theories of organizational stress. Oxford, UK: Oxford University Press.

64. Cooper, C. L., Dewe, P. J. & O'Driscoll, M. P. (2001) Organizational stress: A review and critique of theory, research, and applications. Thousand Oaks, CA: Sage.

65. Zohar, Dov (1999). "When Things Go Wrong: The Effect of Daily Work Hassles on Effort, Exertion and Negative Mood". Journal of Occupational and Organizational Psychology. **72** (3): 265–283.

66. Kossek, E. E.; Ozeki, C. (1998). "Work–family conflict, policies, and the job–life satisfaction relationship: A review and directions for organizational behavior–human resources research". Journal of Applied Psychology. **83**: 139–149. doi:10.1037/0021-9010.83.2.139.

67. Minas, C. (2000). "Stress at Work: a Sociological Perspective". The Canadian Review of Sociology and Anthropology. **37** (1): 119.

68. Saxby, C. (June 2008). Barriers to Communication. Evansville Business Journal. 1-2.

69. Temple, H.; Gillespie, B. (2009). "Taking Charge of Work and Life". ABA Journal. **95** (2): 31–32.

70. Baseline measurements for the evaluation of work-related stress campaign. By A Pilkington and others. (2000). Sudbury: HSE Books. (Contract Research Report No. 322/2000.)

71. Hackman, J. R. and G. R. Oldham (1976). Motivation through the design of work. Organizational Behavior & Human Decision Processes, Vol. 16(2), pp. 250-279.

72. Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. Administrative Science Quarterly, Vol. 24, pp. 285-308.