INTRODUCTION

Chapter II

Review of Literature
The review of related studies is an important aspect of any research study. The present chapter provides a brief review of literature relating to the main themes under consideration. It also provides a framework for establishing the importance of the study.

In 1973, Good said that the key to the vast storehouse of published literature may open doors to some of significant problems and explanatory hypotheses, and provide helpful orientation for definition of the problem, background for selection of procedure and comparative data for interpretation of results. In order to be truly creative and original one must read extensively and critically as a stimulus to thinking (cited in Mc Burney, 2001).

Review of related studies avoids duplication of work that has already been done and it helps the investigator to study the different sides of the problem.

The review materials collected is presented herein under categories which are given below:

(i) Occupational stress.
(ii) Occupational stress and its effects.
(iii) Occupational stress and work related factors.
(iv) Occupational stress and personality.
(v) Gender and occupational stress.
(vi) Hostility.
(vii) Personality and hostility.
(viii) Hostility and stress.
(ix) Hostility and depression.
(x) Depression.
(xi) Stress and depression
(xii) Depression and personality
(xiii) Depression in the work place.

**Occupational Stress**

A comparative study of occupational stress among African American and White college and University faculty members in U.S. institution by Smith and Witt, 1993 suggests that the African American Faculty report generally higher levels of occupation stress than their White counterparts, especially in the areas of research and service activities.

A cross-sectional research conducted by Furnham in 1997. The study involved 134 workers indicating their levels of agreement with a series of statements about stress at work. Respondents emphasised the behavioral consequences of occupational stress (eg. impaired productivity and performance) more frequently than psychological strains, although anxiety, depression and fatigue were also highlighted. A number of what Furnham termed "intra-individual" factors (such as will power), and "inter-individual strategies" (such as seeking professional help) were cited as the most effective ways of managing workplace stress.

Occupational stress has been recognised as a major health issue for modern work organizations. Conditions of the workplace have been shown to lead to negative emotional reactions, physical health problems in both the short term and long term, and counter productive behaviour at work. Perception of control plays an important role in this process, being associated with all of these variables. Evidence is growing that enhanced control at work
can be an important element in employee's health and well-being (Spector, 2002).

Pinikahana and Happell (2004) conducted a study to measure the level of stress, burnout and job satisfaction in rural psychiatric nurses in Victoria (n=136). The findings indicated that a low number of rural psychiatric nurses suffered from 'high' level of burnout and the majority of nurses reported 'low level' of emotional exhaustion and depersonalisation scores. And on the personal accomplishment 87% recorded 'low score' and workload was the highest perceived stressor followed by 'inadequate preparation'.

Bidlan (2005) examined semi-skilled workers from small and large-scale industrial units of Haryana, on measures of job involvement, job frustration and occupational stress. Results suggest that small-scale industrial workers had significantly greater degree of job involvement and job frustration than large-scale industrial counterparts. And also found that job frustration and organizational stress correlate positively and significantly in both the groups.

The effects of cognitive appraisal on experience of occupational stress and relationship between job stress and consequent job and health strains were studied by Srivastava (2005) among technical supervision from transactional model perspective. It was found that low appraisal of demands and threats posed by stressful situations and high appraisal of available capability and resources mitigate the degree of stress. It was also noted that cognitive appraisal markedly modify the relationship of job stress and consequent stress.

Anaesthesiology is considered a stressful occupation. Morais et al (2006) studied the stress and burnout among Portuguese anaesthesiologists.
A cross sectional survey based on an anonymous questionnaire was sent to all Portuguese anaesthesiologists registered by the Portuguese Medical Association and the study concluded that there are stress conditions and burnout amongst Portuguese anaesthesiologists was extremely high in the studied sample. Emotional exhaustion is partially explained by high perceived stress and low job satisfaction.

**Occupational Stress and its Effects**

Stress at work resulting from increased complexity of work and its divergent demands has become prominent feature of the modern organizations extending impairing effects on employee's physical as well as psychological well-being. Though a moderate degree of stress has been noted and it has been found creating as well as promoting employee's inclination towards the job, excessive and consistent job stress results in job dissatisfaction, tension, anxiety, depression and in some cases even serious mental and physical disabilities ranging all the way to coronary diseases (Srivastava, 1991).

Reactions or effects of excessive work stress take an exacerbated form in some occupation. In service-oriented jobs, in which one is faced to constantly engaged in interpersonal dealings (which are also referred to as people-oriented jobs) a stage is reached when one starts feeling that enough is enough, the job has become impossible. This stage can be likened to the burnout effect. People working in hospitals, schools, banks, custom-oriented services such as those of an airhostess or flight purser, are more prone to such burnout effects. The chief cause of burnout is unrelieved work stress which results in emotional and/or behavioural and for physical exhaustion, lowered job productivity and increased dissatisfaction and pessimism at work (Veningar and Spradley, 1981).
Effects of stress at work are specifically related to the nature of the work being performed. First, and foremost are the effects or neuropsychological functions. While there is widespread resources of cardiovascular and gastrointestinal effects of stress, locomotor functioning is also affected. This is specially so in the case of occupational stress among people who are forced to use certain muscles more than others (such as typists, office workers and industrial workers). Along with muscular fatigue they suffer from stiffness of the back, neck and forearm, or what has been termed as the occupation neck-shoulder-arm syndrome. People suffering from this syndrome characteristically manifest not only the normal aches and pains produced by overuse, but also report clamminess of the hands, headaches, insomnia and secondary emotional complaints (such as depression). The central nervous system also affected in some cases. 'Minipanics' may be seen, which result from lapses of vigilance due to monotony (Agrawal, 2001).

Effects of stress can be clearly pinpointed observed and measured, emotional changes are highly subjective. One can experience them, but one cannot express them in words. Often a person may be seething with anger within, but maintains a cool exterior, clearly indicating that emotions are not always observable. These identifiable emotional constellations that are fairly regular outcomes of stress are anxiety, anger and depression. (Agrawal, 2001).

Popular press and many academic articles lend credence to the view that work stress is increasing. It is evident that the working environment is a major focus for stress research. According to a survey conducted by International Labour Organization, stress and accompanying depression in the workplace is now the second most disabling illness inflicting workers after heart disease (Varhol, 2000).
Both male and female yoga practitioners were less stressed and anxious as compared to non-yoga practitioners (Venkatesh, et al, 1994). Srivastava and Pandey (2000) examined the relationship between role conflict and tension among 100 university employees. Results revealed that though the correlation between role conflict and tension were not significant, employees scored high both on role conflict and tension.

Stress was found to be negatively correlated with the mental health of supervisors (Mishra and Somani, 1993) and teachers (Anand, 1996-97). Stress was negatively associated with quality of life among female clerks, doctors, and teachers (Daga, 1997). Stress was positively correlated with depression among male teachers of higher educational institutions (Mishra, 1995). Job related stress was high among employees who performed repetitive work as compared to those who were engaged in non-repetitive work. The former group also had poor mental health and lower esteem (Baran, Rahman and Sen, 1999).

Verma, et al (2002) explored the mental health status and occupational stress among army and air force personnel. 80 air force and 90 army personnel were participated in the study. And it was observed that 30 army (33%) and 26 air force (32.5%) are poor in mental health. These 56 cases with poor mental health were again subjected to occupational stress inventory and the results revealed that among the army personnel with poor mental health status, the majority used poor coping skills and experienced high occupational stress.

**Occupation Stress and Work Related Factors**

According to Hackman and Oldham (1975), creative traits not only cause stress among creative managers but also make them like risk, insecurity and independent thoughts and actions. Second they noted that many of the
coping strategies for creative managers aim at reducing interpersonal conflicts because their emotional sensitiveness, mental complexities and novelty of ideas are a major source of stress. They reviewed some studies done abroad confirming the view that the problem of mobilizing social and political support are the major stressors for creative individuals.

In a comparison of personal and professional stressors experienced by Indian and American executives working in banks, textile mills, pharmaceutical, engineering, petrochemical and electrical industries it was found that professional stressors were similar in both countries. However, personal stressors were different in both countries and Indian executives experienced more personal stressors (Batlivala, 1990).

Similarly, a comparison of Indian and American female clerical employees revealed that the source of stress among American clerks was lack of control autonomy whereas among Indian it was lack of structure and clarity of task (Narayanan, Menon and Spector, 1999).

Job related strain was positively related to strenuous working conditions, role overload and role conflict among junior management officers. (Chand and Sethi, 1997). The length of tenure among teachers was positively correlated with stress (Akhtar and Vadra, 1990). Professionals in various fields who perceived higher social support were less affected by the stress experienced at the workplace. (Banerjee and Gupta, 1996; Singh and Srivastava, 1996).

Role related stress was negatively correlated with quality of work life and socio political alienation at the workplace in general (Ahmad and Mehta, 1997) among middle level managers/superiors of both private and public sector organizations. Overall role related stress was correlated positively with despair, normlessness and meaninglessness – all variants of alienation
Perceived role stress was negatively associated with trust and positively associated with distrust among executives working in private and public sector organizations (Dwivedi, 1997).

Executives experience a variety of stresses, including role ambiguity, role conflict, role overload, personal inadequacy, resource inadequacy, role shrinkage, role stagnation and role isolation. Depending on the level of these stresses experienced by executives, they may be categorized as eustress and distress. The former is a moderate degree of stress and has a positive impact on work behavior and health. On the contrary, the latter is a high degree of stress and the executive may not be capable of managing it effectively. Hence, it adversely affects health and normal functioning. (Pestonjee, D.M., 1999).

Stress was found to be influenced by age, general ability, and personality factors among 200 male executives (Reddy and Ramamurti, 1991). Age was positively correlated with stress among 80 executives (Beena and Poduval, 1991). Role related stress did not differ with age among bankers (Chaudhary, 1990). However, stress levels were higher in the case of younger female teachers (Ushashree and Jamuna, 1990). There was a positive but non-significant relationship between age and role related stress among railway personnel (Pandey, 1997). Age had no significant impact on stress levels among male and female engineers (Deosthalee, 2000).

Male executives with masculine sex role orientation were higher on role stress as compared to female executives with androgynous sex role orientation (Aditya and Sen, 1993). Education was negatively correlated with stress experienced by engineers (Deosthalee, 2000).

Alienation and organizational frustration was high in private sector managers as compared to public sector managers. (Mishra, Bhardwaj and
Mishra, 1999). The opposite trend was observed by Mohan and Chauhan (1999) for middle level managers. The study reported that public sector managers were more stressed than private sector employees and they perceived the work culture as unsupportive.

Support for personal and professional development was found to moderate the relationship between job stress and organisational commitment (Vashishtha and Mishra, 2000). Further it was observed that robust integrated personalities (good mental health) moderated the relationship between occupation stress and job satisfaction (Mehra and Mishra, 1999). Hierarchical level also moderated the relationship between reported stress and job satisfaction (Jagadish and Singh, 1997). However, participation in decision-making and positive attitude towards working in groups attenuated the negative influence of occupational stress on job satisfaction among blue-collar industrial workers. (Mehra, 1993; Mehra and Mishra, 1993).

Mishra (1996) noted that the defensive style was the most frequently used coping style. Avoidance strategies were used more frequently than approach strategies by air traffic controllers. Srivastava and Krishna (1997) examined the relationship between approach and avoidance models of coping and mental health of 300 LIC employees. It was found that employees who predominantly adopted avoidance mode of coping manifested more severe symptoms of neuroticism and anxiety in comparison to those who frequently used approach coping strategies. Further, avoidance mode of coping was correlated positively and significantly with all the six dimensions of mental health. Kumar and Kulkarni (1996) studied stressors, strains and coping – strategies in a group of 35 Indian commercial pilots. Pilots used coping strategy of reading to increase knowledge/information most frequently, followed by exercise/relaxation techniques, trying to understand and analyse the problem logically, planning time management, and taking a vocation.
Job stress was negatively correlated with job involvement among 60 middle level hotel managers (Ahmad and Khanna, 1992) among executives working in a refinery (Jagdish and Singh, 1997), and among middle level managers working in various departments (Singh and Singh, 1997). Perceived stress was found to be also negatively correlated with job satisfaction among bankers (Chaudhary, 1990). Job stress was negatively correlated with organizational commitment (Pattanayak, Panda and Mohapatra, 1999). A negative correlation was found between organizational commitment and stress across all managerial levels. (Pant and Bhardwaj, 1992).

Siegrist and Colleagues (Siegrist, et al, 1990) have developed an alternative two factor model of work stress that directly incorporates motivation and which emphasises the relationship between effort and reward. Both these models were compared in a prospective study (Whitehall II) of British civil servants, where an imbalance between personal effort (defined as competitiveness, work related over commitment and hostility) and rewards (poor promotion prospects and career obstacles) was associated with greater risk of ill health.

Position within the organizational hierarchy influenced perceived role stress among 50 each of top and middle level managers and 50 workers. Middle level managers perceived greatest role in stress, workers were in the middle and top-level managers perceived least role related stress (Srivastava, Hagtvet and Sen, 1994). There were no differences in role related stress among assistant, associate and full professors of various colleges of Rajasthan (Joshi and Singhvi, 1997). In another study Raju and Madhu (1994) noted that top-level managers reported lower role ambiguity and role stress as compared to middle and junior level employees of a public sector organization.
Grovør and Sen (1994) observed that managers experienced less job stress as compared to supervisors. Similar results were obtained by Pattnayak (1993). Pattnayak, Panda and Mohapatra (1999) noted that non-executives experienced greater stress compared to executives working in a large public sector steel plant. Executives and supervisors differed significantly on inter role distance, role overload, personal inadequacy, and role ambiguity (Satynarayana, 1995). Mukherjee (1997) reported that junior level bank managers perceived higher role related stress as compared to senior level managers. Pattnayak and Mishra (1997) observed the same trend for women executives and assistants working in public sector firm; assistants – experienced greater role related stress than executives. Another study found that workers perceived greatest role stress as compared to middle managers, where as top level managers perceived lowest stress (Jha, Mishra and Bhardwaj, 1994) Pant and Bhardwaj (1992) measured executive stress and its correlates among public sector managers across three levels – top, middle, and lowest. Top-level managers were workaholics, experienced a high degree of stress, and had inadequate coping ability. In addition, among middle level managers, organizational commitment was negatively correlated with effective coping and chronic work related stress.

Junior level scientists reported greater stress than senior level scientists (Roy, 1997). Cabin attendants reported greater role related stress than pilots despite the fact that pilots were higher on trait anxiety (Barnas, 1992b), Railway guards manifested greater anxiety and stress, and lower health status as compared to railway motormen (Barnas, 1992a). Guards also experienced greater stress than railway engine drivers (Sayeed, Alan and Ansari, 1998). Clerical level users of a video display unit were more stressed than those at the managerial level (Arora, 1994). Karrir (1998) examined differences in the perception of quality of work life (QWL) across managerial levels, across private, public, and co-operative sectors. The results indicated that top level
managers had higher QWL than middle and lower level managers. Moreover, public sector managers reported higher QWL than their counterparts in the private and co-operative sectors.

Maximum role stress was observed in relation to the dimension of role erosion among college professors. Role erosion, self-role distance, resource in adequacy, role isolation, and role expectations were significant contributors to stress among executives (Srivastava, 1997). Further, role erosion and resource inadequacy contributed to the stress level of executives and supervisors working in a public sector organisation (Satyanarayana, 1995). Also, role erosion, resource inadequacy, and inter role distance were dominant contributors to role stress among 222 executives – working at all levels in a public sector organization (Seghal, 1997). Role erosion and resource inadequacy were dominant contributors to role stress among bank officer (Chaudhary, 1990). Maximum role stress was experienced in relation to the dimensions of rule erosion and role isolation among bankers (Mukherjee, 1997). In a study railway guards reported that they were facing work overload, unable to participate in decision-making and felt powerless which in turn lead to higher stress levels (Sayeed, Alam, and Ansari, 1998).

Majority of the scientists reported moderate to low stress (Savita and Asnani, 1998). A moderate level of stress was observed among women doctors, teachers, bank officers and bureaucrats (Gaur and Dhawan, 2000). Executives were found to be more stressed than physicians, especially to the area of role insufficiency (Ghosh, 2000). University teachers are less stressed than that of back managers (Barkat and Parveen, 1999). Employees of administrative organizations reported greater stress than those working in financial organisation at the same level in the hierarchy (Sahoo, Mohanty and Bhakat, 1995). Nurses perceived more work stress than lectures but did not express more personal strain (Orpen, 1996).
In a comparison of role stress experienced by officers and school teachers, it was found that teachers experienced least role stress (Pareek and Mehta, 1997). Similarly Mishra (1996) reported that female teachers experienced greater role related stress, interpersonal stress and work overload as compared to their male colleagues.

Gynaecologists and paediatricians were more stressed, emotionally exhausted and reported higher feelings of depersonalisation as compared to surgeons and medicine specialists (Jagadish and Reddy, 2000). Rani Lakshmi and Mishra (2001), in a study of doctors and nurses, observed that profession had a significant effect on the experience of several facets of occupational role stress, namely, role expectations effect, role erosion, role overload, role isolation, personal inadequacy, self role distance, role ambiguity, and role inadequacy.

Desai (1993) identified the differential response profiles of three levels of management on measures of stress and mental workload. The relationship between stress and mental workload was also examined. Upper and middle levels of management experienced higher stress and mental workload as compared to lower level managers. Perceived effort was main contributor to stress. Perceived effort was positively correlated with Type A personality, job involvement, and hard driving behavior in the case of upper level managers. For middle managers, perceived effort was positively correlated with Type A personality, speed and impatience, and hard driving (competitive) behavior. For lower management levels, perceived effort was significantly correlated to all the four dimensions – Type a personality, job involvement, speed and impatience, and had driving behavior. Personnel in the technical departments experienced less stress than those in the commercial departments.

Organizational stressors contributed to the largest difference between high and low stress groups among bank employees. There were no significant
differences in the stress perception of officers and clerks, married and unmarried personnel, males and females (Rajeshwari, 1992). The number of dependents was positively correlated with role related stress among female nurses (Akhtar and Vadra, 1990).

Mathew (1995) observed that police personnel reported career development uncertainties, death of colleagues, threat of personal injury, unofficial work as directed by the boss, poor personnel policies, dangerous work duties as contributing to high stress levels. Like the police personnel, pilots also reported that lack of career growth opportunities, inadequate and unsafe working conditions, and lack of management support were the major contributors to the stress experienced by them (Kumar and Kulkarni, 1996). Inter role distance and resource inadequacy were the dominant contributors to role stress among air traffic controllers (Mishra, 1996).

Misra (1998) and Pestonjee (1995) noted that overall role stress among doctors was moderate. However, role erosions, role stagnation, self-role distance and inter role distance were experienced much more than role ambiguity and role overload. On almost all measures nurses were found to be more stressed than doctors (Rani Lakshmi and Mishra, 2001).

Role erosion, role stagnation, self-role and inter role distance contributed to perceived stress among 30 police officers (Mathur, 1994). Another study on policy professionals by Singhvi and Mathur (1997) observed that role erosions and inter role distance were the most dominant where as role ambiguity and role overload were the least dominant contributors of role stress.

In a study of (Searle et al, 1999) the 3-factor model of occupational stress, which predicts that job demands, job control and social support influenced levels of strain. Stress was found to be higher and perceived
performance was lower in condition of high demand; this pattern was also observed in conditions of low social support. Task control did not affect stress and the manipulation did not interact to produce elevated stress. Work preference measures indicated that the level of fit between ideal and actual social support influenced stress and perceived performance.

Tyagi and Sen (2000) found that female managers were more stressed than male managers, and supervisors were more stressed than executives irrespective of gender. Male engineers experienced more stress than female engineers (Deosthalee, 2000). Chattopadhyay and Dasgupta (1999) did not find any significant difference in the perceived role stress among single and married female executives. The level of stress among video display terminal users in the newspaper industry was higher than among non video display terminal users (Singh, 1993). Similarly, it was also observed that video display terminal users were more stressed, anxious and fatigued than non-users (Arora, 1994). Employees of nationalised banks reported lesser burnout but higher emotional exhaustion than those of scheduled banks (Tewari, 1995).

Managers/supervisors who were stressed were more likely to perceive the appraisal as unfair and inappropriate (Desai and Daftuar, 2000). The effects of role stress, organizational climate and ego strength on psychological strain (as measured by environmental frustration, anger reactions, latent hostility and job anxiety) in middle level managers were studied by Singh and Singh (1992). Managers who experienced high organizational role stress reported more environmental frustrations, anger reactions, and job anxiety than managers who experienced low stress. Managers who perceived the organizational climate as more conducive scored significantly lower on job anxiety than those who perceived the climate as less conducive. Managers with high ego strength scored lower on environmental frustration, anger
reactions and latent hostility and significantly lower on job anxiety than managers with low ego strength.

In Europe, occupational stress is considered as a risk-assessable disease. Recent high-profile litigation cases have raised awareness of the risk posed by workplace stress. Whilst legislation provides guidelines for the risk assessment of physical hazards, there remains little guidance for employers concerning occupational stress. It is suggested that a risk management approach is both information and cost effective. High risks, which may require more expensive organizational development solutions, can be differentiated and prioritised from lower risks, which may be effectively controlled through stress management or Employee Assistance programmes. (Clarke and Cooper, 2000).

Pandey and Srivastava (2000) evaluated the role of job category, family type and job tenure in work stress, coping, and illness. The sample of job category includes teachers, bank and railway clerks of 240 career oriented females. The study concluded that, there is significant main effects of job category, family type, and job tenure on work stress. As far as physical illness was concerned, job category and job tenure, but not family type had a significant influence, where as job category and family type, but not job tenure had significant impact on the psychological health of the respondents. Groups differed significantly or various dimensions of coping responses related to active, adaptive, and maladaptive styles.

A two-day yoga based stress management programme helped in lowering the breathing rates of those who had obtained high occupational stress scores. However, the programme does not benefit those where stress scores were below the median (Vampati and Telles, 2000).
Review of research on occupational stressors and strains amongst academics working in UK Universities, (Kinman, 2001) suggest that, in comparison to other professionals and community samples, academic staff experience less job satisfaction and extremely low levels of psychological health.

Upadhayay and Sing (2001) compared the occupational stress levels experienced by college teachers and higher secondary school teachers among the 40 teachers, so in each of the two groups. And it found that significant differences between the two groups on variables related to role overload, role ambiguity, and responsibility, under participation, powerlessness, poor and peer relations and unprofitability.

In recent years, the Australian University sector has undergone large scale organizational change, including restructuring, downsizing, and government funding cuts. At the same time, research from across the globe reports an alarming increase in the occupational stress experienced by university staff. The first phase of a longitudinal investigation of occupational stress. A total of 22 focus groups were conducted with a representative sample of 178 academic and general staff from 15 Australian universities. The group's focused on understanding staff's experience of occupational stress, and perception of the sources, consequences, and moderators of stress. Both general and academic staff reported a dramatic increase in stress during the previous 5 years. As a group, academic staff reported higher levels of stress were identified including: insufficient funding and resources; work overload; poor management practice; job insecurity; and insufficient recognition and reward. The majority of the groups reported that job-related stress was having a deleterious impact on their professional work and personal welfare. (Gillespie, et al, 2001).
Some degree of occupational stress is common to every organization at various levels of its hierarchy. The police organization is no exception to this rule. Rather policing is widely recognised or more stressful than most other occupations. Few researchers have tried to investigate the problem of police stress in India. Present study (Siwach, 2001) is an attempt in the same direction. The present endeavour was planned to explore the possibility of the existence of police specific stress and burnout stress syndrome among police personnel. 300 police personnel were selected from various north Indian states. It was also intended to investigate whether there are difference in the extent of police specific stress and burnout stress syndrome amongst the police personnel working at different levels of police organization. Findings clearly indicate that the police officials are under stress and it is increasing with the organizational hierarchy and only a small number of officials have reported high level of burnout.

Sing et al, (2001) explored the relationship between role stress and role efficacy and their moderating influences on organizational effectiveness at two levels of the organizational hierarchy. The sample of 96 upper middle, middle, and junior managers (average age 38.9 years) and 224 supervisors (average age 42.3 years) of a public sector agricultural organization in Delhi. Supervisors experienced greater amount of role stress and perceived role efficacy than managers. However, on most of the role efficacy dimensions there were no significant differences. No differences were found on the experiences of organizational effectiveness. Role stress and role efficacy were inversely related, and both moderated the experience of organizational effectiveness to varying degrees at the two hierarchical levels.

Occupation stress has been recognised as a major health issue for modern work organization (Spector, 2002). Conditions of workplace have been show to lead to negative emotional reactions (eg: anxiety), physical
health problems in both the short term (eg, headache, or stomach distress) and the long term (cardiovascular disease), and counter productive behavior at work. Perceptions of control play an important role in this process, being associated with all of these variables. Evidence is growing that enhanced control at work can be an important element in employees health and well being. These relationships can be understood in the context of the control-stress model.

Srivastava and Sing (2002) examined the relationship between job and life stress and health outcomes of management personnel among the sample of 200 male managers. Psychosomatic health complaints (PHC), Pathogenic health habits (PHH) and data on blood pressure (BP) were also collected. Job stress was significantly related to PHC and PHH. As compared to job stress, life stress was found to be a stronger predictor of health outcomes. Life stress was significantly related to higher systolic BP, PHC and PHH.

Many studies have shown high levels of stress in doctors, teachers and lectures. Rutter et al (2002), explored the relationship between a teaching role and stress in doctors and dentists who teach. A large number of factors are implicated including low autonomy, work overload, and lack of congruence between power and responsibility. Working as a doctor or dentist may entail higher levels of stress than are experienced by the general population. In some situations adding in the role of teacher reduces this stress.

Bhatia and Kumar (2003) were made in attempt to explore in-depth relationship between total occupational stress pattern with its twelve components and three syndromes of burnout emotional exhaustion, depersonalisation and reduced personal accomplishment among supervisors and below supervisor rank staff (N=80). And the findings indicated that occupational stress was positively correlated with emotional exhaustion and
depersonalisation syndromes of burnout among supervisor as well as below supervisor rank staff, showing that high stress resulted in emotional exhaustion and depersonalisation in both the groups. Where as negative relationship was obtained between occupational stress and personal accomplishment only in the case of supervisor staff, showing that the high occupational stress from different sources experienced by the supervisor level staff resulted in reduced personal accomplishment.

To explore the effect of job autonomy upon occupational stress among 300 managers from various private sector concerns of Agra, Delhi and nearby cities of Agra. Das and Singhal (2003) concluded that there were significant difference between the stress scores of managers with high job autonomy and those with low job autonomy. The managers with high job autonomy show less stress as compared to managers with low job autonomy. However there were no significant difference between the stress scores of managers with low job autonomy and managers having moderate job autonomy.

Teaching school is highly stressful occupation. Research on teacher stress and burnout has largely focussed on environmental and contextual factors. While ignoring personality characteristics of teachers that may have an impact on relationship between job stress and its consequences. On the study of Mearns and Cain (2003) showed that higher stress on the job did indeed predict greater amount and distress. Negative Mood Regulation (NMR) expectancies predicted less burnout and distress, independent of stress level and coping.

Vashishtha and Mishra (2004) studied the relative contribution of social support and occupational stress to organizational commitment of 200 supervisors. The results revealed that social support and occupational stress significantly predict the degree of organizational commitment of supervisors.
Mehra and Mishra (2004) investigated to explore the potential moderator effect of autonomy on the job satisfaction, occupational stress relationship among the sample of 250 blue-collar industrial workers of "UPTRON INDIA LTD" in Lucknow. The moderated regression analysis confirms that autonomy area of participation does not have moderating effect on the job satisfaction – occupational stress relationship.

Bhowon and Kion (2004) examined the relationship of perceived organizational climate and stress. Seven dimensions of organizational stress and climate were extracted through varimax rotated factor analysis. Experience of inequity, role overload, and inadequacy of role authority emerged as strong dimensions of stress, whereas job difficulty and lack of group cohesiveness were weak dimensions of stress. The study concluded with that significant relationship between dimensions of stress and climate indicating that employee's perceptions of the organizations structure and processes determine stress experience.

Coping styles influence levels of stress. This study examines how workers cope with hazards at work and whether unions help workers cope more effectively with those hazards. Baugher and his colleagues (2004) surveyed 237 workers at a chemical plant in Louisiana and found that perceived exposure to fire and explosions at work increased workers' levels of anxiety. Problem focussed strategies to cope with these potential risks reduced anxiety and depression. Aside from supervisory or managerial authority, which is not available to most workers, we found that only one factor effectively moves workers who are in subordinate positions to actively cope with hazards: membership is an independent labour union. These findings suggest that union growth could indirectly reduce job stress by giving workers the voice to cope effectively with job hazards.
Dillenburger (2004) studied the causes and alleviation of occupational stress among social workers who are doing services in family and child care. The findings showed that social workers experience more occupational stress than would be expected in the general populations. Consistent with a demand-control support model, this was mainly caused by high work loads, high staff turnover and insufficient leadership and support.

Occupational stress is associated with specific situations, characteristics of the work environment and individual perception and reactions in the context of the workplace. Nursing is acknowledged as a stressful occupation whose stresses are generally associated with the job itself, while the effects of personal characteristics on an individual's response to occupational stress are dismissed. Stacciarini and Troccoli (2004) found that occupational stress was directly associated with state of health, and inversely associated with global constructive thinking and job satisfaction. Constructive thinking was significantly related to psychological health, occupational stress and physical ill-health highlights a need to value individual coping styles in the work environment.

Restructuring, use of short-term contracts, external scrutiny and accountability and major reductions in funding are making a drastic change among the staff of UK's higher educational institutions. Tytherleigh, et al, (2005) found that the most significant source of stress for all higher education staff was job insecurity. And also reported, significantly higher levels of stress at work relating to work relationships, control, resources and communication and lower levels of commitment to their organization.

Ryan et al, (2005) identified work-related stress is a significant impediment to job satisfaction and healthy psychosocial functioning. It can alter the behaviour of the person involved and impair the quality of life. Over the last decade, work-related stress has been consistently identified as one of
the major workplace concerns – a challenge not only to the health of working people but also to the healthiness of their organizations.

Individual's beliefs in relation to job stress are likely to affect their perception and hence their work related actions. Kinman and Jones (2005) found between lay and professional discourses on work stress. Results indicate that lay representation of occupational stress are multifaceted. Utilizing semi-structured interview, little consensus was found in low participants interpreted the concept: a diverse range of personal, environmental, and societal factors were highlighted. The causes of stress at work were perceived as being predominantly organizational.

Sophie, et al, (2005) explored the source nature and direction of 'cross over' of occupational stressors and strains in a sample for 74 dual career couples. Research findings suggest that the direction of cross over is predominantly from men to their female partners, positive relationships were found between women's work stressors and the anxiety and depression reported by their male partners.

Stress has physiological, psychological and sociological dimensions. Psychological stress indicates affective, behavioural and psychological responses to aversive stimuli in the environment. When an individual will perceive the stressor, as threatening, he/she will mobilize their resources in an effort to eliminate or at least to reduce the effect of the stressor. The same stress will cause for different kinds of stress responses for different people and various forms of psychopathology may occur as a reaction to the same stress (Glass and Singer, 1977).
Occupational stress and personality

Personality factors can exacerbate stressful reactions. The evidence comes from the work of the two cardiologists mentioned into type A and type B personalities.

Four main characteristics are considered important in Type A personalities:

(i) Multiple behaviour patterns - the tendency to undertake two or more tasks concurrently; a consequence of this pattern is a failure to compete the tasks satisfactorily.

(ii) Time urgency - tendency to habitually programme too much work into a limited period of time.

(iii) Inappropriate aggression - hostility and competitiveness, Frequent displays of aggression are common, often response to minor provocation or frustration.

(iv) Poorly defined goals - tendency to rush into work without defining objectives and the means by which these will be attained.

Type B patterns involve passivity as not being overly ambitious, restraint and not being prone to develop stress-related disorders (cited in Beech, et al., 1982).

Chen et al (2003) explored the determinants of perceived sources of occupational stress among workers in the rapidly expanding Chinese offshore oil industry. Using factors analysis, they identified nine sources of stress: interface between job and family/social life; career and achievement, safety management problems and relationship with workmates, physical environment of workplace, living environment, managerial role, ergonomics
and organizational structure. And better educated workers perceived more stress from the interface between their job and family or social life and career achievement, but less stress from ergonomics. Type A workers perceived more stress from career achievement and the living environment. Social support was significantly associated with four sources of stress. Workers from different job titles perceived stress from different sources.

Media reports frequently portray business executives as stress victims, and the more successful are managers, the more said to be under stress. Does this mean that every manager has to be stressed of he/she is to be successful. No need to wonder about it. Many managers who are busy and successful but seem to be in full command over their lives and are apparently very good stress copers? It appears that only some of them fall sick, while others managers to remain healthy. Researchers in their attempt to get an insight into this very interesting phenomenon have concluded that there is 'something' is the personality of these managers that keeps them healthy. More specifically, it is a factor called personality hardiness. This type of personality is found to be characterized by the three Cs - commitment, challenge and Control. Commitment is displayed by the interest that people show in their work; control is seen when people remain physically and mentally healthy even in the wake of stressful life events (Agrawal, 2001).

Singh and Kaur (2000) examined the association of motives, work values, and personality characteristics with promotional success (PS) among the 80 senior and 80 managers (mean age 40-12 yrs) Hierarchical and Correlational analysis revealed that intelligence, creativity, radicalism, decision making ability, self control, need for achievement, need for power and intrinsic work related values were positively associated work related values were positively associated with promotional success. Easy going, happy go lucky, and suspicious were negatively related to PS. Factor analysis
yielded five factors, three of these were promoters: decision making, achievement via power, and intrinsic values, and two were retarders: easy going and anxiety.

Certain personality variables were found to be positively associated with the experience of stress. For eg, Type A patterns of behavioral disposition is most associated with the experience of stress whereas Type B least associated with stress. Similarly open mindedness, need for independence, need for affiliation, and ego strength were found to be associated with experienced stress (Pestonjee, 1999).

Type A persons are target oriented, aggressive and cannot tolerate being looked down upon and, therefore, aim ever higher and higher. Whereas in type B personality, the incompatibility may result in a conflict between parents and children causing continuous anger and irritation, or a condition of chronic stress (Agrawal, 2001).

Gupta and Sindhwani (2001) examined the type A behaviour pattern among officers and staff of three departments - engineering, commercial, and personnel of an airlines company posted at either the regional office or at the headquarters among 60 married employees (46 males, 14 females, mean age 41 yrs and 9 months). The results found that no significant main effect but significant department by rank and rank by office interaction effect suggesting that officers of the commercial department and staff of the headquarters exhibited more type A behaviour pattern than their respective counterparts.

Pandey (1998) studied the relationship between personality dimensions and organisational role stress in a public sector organization. There were no differences in the role stress of middle level managers, lower level managers and supervisors. The psycholicism-reality and neuroticism stability dimensions of personality were positively related to subject's perceived
organizational role stress (ORS). The extraversion-introversion dimension was negatively related to role stress.

Sharma, Sood and Speilberger (1998) investigated the correlations between occupational stress, anxiety, anger, and Type A behaviour among registered nurses (age 22-48 years) working in four state administered hospitals of Himachal Pradesh. Those with type A behaviour were highly stressed, more likely to repress anger, and manifested higher trait anxiety. Type A subjects reported greater affective discomfort than their Type B counterparts.

Ahmad, James and Ahmad (1991) examined the relationship between organizational role stress (ORS) and job satisfaction, and the personality dimensions of neuroticism - stability and extraversion and introversion among middle level managers. Results indicated that ORS was significantly but negatively correlated with all four factors of job satisfaction (nature of job, management, personal adjustment, and social relations). The neuroticism stability dimension of personality was significantly and positively related to six dimensions of ORS. Only one dimension of ORS, that is, role expectation conflict had a significantly negative relationship with extraversion - introversion.

The level of assertiveness of police officers was not related to the level of stress faced by them (Misra, 1997). Creativity was positively correlated with adaptation and stress among 55 middle level managers (Goklaney, 1993). No significant correlation was evidenced between problem solving style and occupational styles in a study of 150 executives of a government organisation (Panchanathan, Rajendran and Karuppiah, 1993).

Another study of male bankers reported that internal locus of control was correlated with role related stress in their role expectations, role overload,
and role ambiguity facets (Malik and Sabharwal, 1999). Role ambiguity was negatively correlated with external locus of control among university teachers (Joshi and Singhvi, 1997).

**Gender and Occupational Stress**

Differences were found between reported occupational stress among pubic and private sector public relations officers. Higher stress was reported by public sector public relations officers (Misra, 1997). Similarly, bankers of non-nationalised banks reported higher stress levels as compared to those of nationalised banks (Aminabhavi and Triveni, 2000). Differences were found in role related stress experienced by male versus female school teachers working in general schools as compared to no gender differences in teachers working in special schools (Joshi and Singhvi, 2000).

Aditya and Sen (1993) examined the nature and extent of stressors faced by male and female executives in their job situation. The sample comprised 160 middle level executives with an equal number of males age (28-50 years) and females (age 27-50 years). It was observed that male executives who were predominantly masculine in their sex role orientation faced greater sex and anxiety in their job situation - than female executives who were predominantly androgynous in their sex role orientation. The two groups differed maximally in terms of role ambiguity, role conflict, interrole distance, future prospects, human relations at work, and femininity and masculinity dimensions. The findings were discussed in terms of greater reluctance to self-disclosure among males and different socialisation patterns specified for both men and women in Indian society.

Tharakan (1992) found that professional working women experienced greater work related stress than non-professional working women. Also, occupational stress and job satisfaction were significantly correlated with the
professional qualifications of women. Sekhar (1996) found that the type of hospital differentially affected the experience of job stress and job burnout among female nurses. The number of patients that were assigned also significantly affected the nurse's helplessness, depersonalisation experiences, and personal accomplishment. Daga (1997) found that quality of life was correlated negatively but significantly with social and family role stress among female clerks, doctors and teachers. Further, quality of life was associated positively and significantly with social support among clerks and teachers.

Mathur and Singhvi (1997) examined the relationship between organizational role stress and organizational ethos among 400 women in four professions, viz., doctors, school teachers, college teachers, and bank employees. All the women were high on proaction and openness dimensions. Doctors, college teachers, and bank employees were also high on collaboration and experimentation. In the case of all the women, inter role distance and role overload were positively associated with confrontation and experimentation dimensions. Role stagnation was correlated significantly with all the dimensions of organizational ethos.

Kumar and Murty (1998) observed that the most frequently experienced stressors among women managers were office politics, followed by conflict between work and home, community to the workplace, lack of opportunity and challenge at the workplace, and problems related to child care. The major strains experienced by women managers were anxiety, tension, fatigue, lack of concentration, irritation and physical health problems. Further the most frequently used coping strategies were talking with spouse/friends/parents/supervisors/colleagues about the problem, followed by efforts to increase knowledge/information, physical withdrawal from the
situation for a while, pursuing socio cultural religious activities, and doing physical exercise/ yoga/meditation.

Today, women have joined hands with men in the workforce in the organization. This in turn leads a number of role stresses among working women. Rastogi and Kashyap (2001) find out the relationship between occupational stress and mental health among married working women employed in different professions in teaching, nursing and clerical staff and it reveal that maximum occupational stress was found among nurses in comparison to clerks and teachers. A significant negative relationship between occupational stress and mental health is found.

Saha, et al. (2002) investigated occupational stress as a function of gender role identity and job type in a sample of general physicians (N=100). The findings revealed that there is significant main effects of job type and gender role identity. Job type by gender role identity interaction effects were also significant. These independent variables influenced singly as well as jointly the way doctors feel, behave, interpret, and cope with stress.

The workplace has been identified as the primary stressor and the home in contrast viewed as a sanctuary, where one can recapitulates problems at work. There is an assumption that women's role as wife, mother and homemaker are somewhat natural and are free from undue stress. However the necessity of carrying out multiple roles to meet their own needs and those of others is likely to increase stress, which influences their health. A study conducted by Osmany and Khan (2003) among 30 married and 30 unmarried working-women employed in different schools and offices of Delhi. Findings revealed that unmarried working women reported high stress at work place due to group political pressure and for married women, it was due to poor peer relations, group differences were not significant on other dimensions (Osmany and Khan, 2003).
Kim et al. (2005) tried to identify the relationship of work stress and family stress to the health of women employed in industrial sector in Korea. They found that, there was a significant positive relationship between social support and perceived health status (PHS), but significant negative relationships were found between PHS and work stress as well as family stress. And the study concluded that, both work stress and family stress should be considered together when addressing the health of working women in the industrial sector in Korea.

Hostility

Hostility is a psychological contributor to negative health outcomes. Williams and Colleagues found that persons high in cynical hostility as measured by the Cook-Medley Ho scale were at increased risk of death due to all causes. In the light of studies by Suarez and Everson, one may speculate that hostile persons perceive many social situations in a negative light, produce feelings of hostility, and develop exaggerated physiological responses. Such situational appraisals and their accompanying responses may be at the elevated death rates seen in highly hostile persons (cited in Lovallo, 1997).

Suarez and Williams (1989) has shown that persons high in cynical hostility are producing larger blood pressure responses to a task performed. In a study of Everson et al. (1995) found that high hostile men reported feeling more global activation and a greater sense of distress than low-hostile men (cited in Lovallo, 1997).

Manufacturing strategy represents the way a firm plans to deploy its manufacturing resources and to use its manufacturing capability to achieve its goals. Recent research by Gyamph (2003) has pointed that, the important role of the workplace environment and strategy choices by the organizations. And
it also found that an emerging economy concerns about the competitive hostility is the factor with the strongest influence on performance.

Ambulatory heart rate and blood pressure would be higher for individuals high but not low in hostility when they experienced negative affect for social stress and that this interaction would be stronger for Indians compared with other Singapore ethnic groups (Enkelmann, et al., 2005). Individuals high in hostility showed higher systolic blood pressure when reporting negative affect where as this was not true for those low in hostility. Also a three-way interaction between ethnicity, hostility and social stress between Singapore ethnic groups, indicated that hostility and social stress interacted in their effects on DBP for Indian participants but not for Chinese or Malaya. Again three way interaction between ethnicity, hostility and negative affect for heart rate in which heart rate increased with increasing levels of negative affect for Chinese high hostility and Malyas low in hostility.

Study by Sandhya Rao, et al. (2004) used data from the national drug abuse treatment outcome studies (DATOS) to investigate the association that pre-treatment, depression and hostility have with drug use and criminal behaviour at 1 year and 5 year follow-up in patients with and without additional treatment involvement in the year prior to each follow-up. Multiple regression analysis revealed that greater depression predicted less drug use in the year preceding each follow up, whereas greater hostility predicted increased drug use and more arrests at each follow-up. Furthermore, these predictive relationship appeared only among individuals not involved in additional treatment. And finally he study concluded that depression and hostility showed opposite associations with outcomes, underscoring the need to assess these psychological conditions seperately and tailor treatment plans appropriately.
Virtanew, *et al* (2005) used two studies to examine whether mental health and hostility predicted temporary employment. Study involved a Cohort of 970 Finnish hospital employees (102 men, 868 women) who had temporary job contracts at baseline. After adjustment for demographics, organizational tenure and part-time work status, doctor diagnosed psychiatric disorder predicted continuing in temporary employment instead of receiving a permanent job by the end of the 2 year follow-up. A higher level of hostility was also associated with temporary employment, but only among employees in low socio-economic positions. In study 2, anxiety and aggressive behaviour were measured in a Cohort of 226 Finnish School Children (116 boys, 110 girls) at 8 years of age. Anxiety in childhood predicted temporary employment at age 42. Aggressive behaviour in childhood was related to ongoing temporary employment status in adulthood among individuals in low socio-economic positions. Our findings suggest that selection by individual characteristics operates between the temporary and permanent workforces. Mental health problems, a part of which are already seen in childhood, seem to restrict individuals' possibilities to gain secure labour market positions. Hostility and aggressiveness seem to be related to labour market prospects only among individuals in low socio-economic positions.

Inspired by affective events theory Timothy *et al*. (2006) examined the nature of work, work attitudes and workplace deviance. Sixty four employees completed daily surveys over 3 weeks, reporting their mood, job satisfaction, perceived interpersonal treatment and deviance. Supervisors and significant others also evaluated employees workplace deviance and trait hostility respectively. Over half of the total variance in workplace deviance was within individual and this intra individual variance was predicted by momentary hostility, interpersonal justice, and job satisfaction. Moreover trait hostility moderated the interpersonal justice - state hostility relation such
that perceived injustice was more strongly related to state hostility for individuals high in trait hostility.

Julkunen and Ahlstroma (2006) investigated the relationship of hostility and anger expression to sense of coherence (SOC) and their role as predictors of health related quality of life. It is concluded that the role of hostility as a risk factor of mental health and physical well-being and should be considered for further studies.

**Personality and hostility**

Hostility of type A's may provoke more arguments and conflicts with others. Subjects high in hostility, reported more hassles, more negative life events, more marital conflicts and more work related stress than subjects who were lower in hostility (Smith et al., 1988).

According to the personality, Friedman and Rosenman (1993) divided people into two basic types. Type A and B - who exhibited different characteristics. The type A personality include strong competitive orientations, impatience, time urgency, anger and hostility. In contrast type B personality is marked by relatively relaxed patient, easy going, amicable behaviour.

In the Whitehall studies, Type A behaviour was found to be more frequent in higher occupational groups, whilst hostility and cardiovascular risk are more prominent in lower grades (Marmot et al., 1991).

It is easy to interpret evidence for the role of psychological factors such as hostility in ill-health as favouring interventions at the individual level. Hostility is more common in lower social classes (Reberts, et al., 2001).

The fact that hostility itself is a broad concept should also not be overlooked - possessing as it does connotations of anger, aggression and a
chronic negative outlook. Aspects which may encompass behaviours, feelings and cognitions and which may require additional coping resources to deal with (Roberts, et al., 2001).

Elovainio et al. (2003) examined whether hostility and neuroticism moderated the effect of organizational justice perceptions on short-term sickness absence among 506 male and 3570 female hospital employees. Hierarchical moderated Poisson regression models suggest that low procedural justice perceptions related to increased sickness absence more in hostile men than in other male employees. Low relational justice perceptions were a greater risk for sickness absence for male employees with higher neuroticism than for their colleagues with lower neuroticism.

Type A subjects are characterized by dysfunctional cognitions related to themes of competitiveness, achievements and hostility. Faunce, et al. (2004) investigated attentional biases for words relevant to the content of these dysfunctional schemata in Type A individuals. After completing the MMPI-2 Type A scale, subjects completed two alternative versions of a visual probe detection task which contained achievement, failure, and anger/hostility/aggression related words. Prior to testing at time 1, subjects were told that the purpose of the procedure was to collect normative data only. Prior to testing at time 2, subjects were told that performance on the test was known to be closely related to IQ and that they could compare their performance with that of other subjects following completion of the task. Type A subjects directed attention towards anger/hostility/aggressions words under low performance motivation conditions but away from such words under high performance motivation conditions.

The presence of personality traits of aggression and hostility, in generally healthy human subjects, has been shown to be associated with elevations of C-reactive protein (pCRP), which has also been shown to be
associated with an increased risk of cardiac disease. In this pilot study by Coccaro (2005) concluded that, the association of elevations in pCRP level in medically healthy personality disordered subjects with higher scores of trait aggression and hostility suggests the presence of chronic inflammation in highly aggressive/hostile personality disordered subjects.

**Hostility and Stress**

Difference in physiological reactivity and recovery to stress among low and high hostile men were assessed by Rhodes *et al.* (2002). 25 low and 25 high hostile: undergraduates were identified and to ensure homogeneity, all subjects were right handed and had a general right homibody preference. Increased physiological arousal between pre and post stress measurements was used as an indicator of reactivity. Subsequent decreases in physiological arousal were used as recover measures. Given the current models of negative emotion and hostility, it was expected that high-hostiles, relative to low hostiles, would evidence increased physiological arousal and decreased recovery to stress, Interestingly, high-hostiles experienced significantly greater reactivity to stress in heart.

Significant age-adjusted trends for declining well-being with occupational position have also been reported for social functioning, satisfaction with life, positive affect, hostility, job satisfaction and various forms of social support (Marmot, *et al.*, 1991).

The purpose of the study was to compare the stress-response-dampening (SRD) effect of alcohol in hostile and non-hostile men based on a combined score of four subscales of the Cook-Medley Hostility scale. Subjects were 72 male social drinkers. Results demonstrated that hostile men evinced lower heart rate and systolic blood pressure (SBP) reactivity to the stressor when given alcohol, compared with intoxicated non-hostile subjects,
and lower reactivity relative to all other groups, with the exceptions of SBP in the non-hostile controls. These results show for speculation that hostile men may be more likely than controls to experience possible SRD effects of alcohol and thus, perhaps, be predisposed to increased alcohol consumption when under stress (Zuchner, et al., 1995).

**Hostility and Depression**

According Hellar (1993), the increased levels of depression and anxiety seen in the high-hostile group should serve to negate one another. Heller proposes a relative increase in right frontal activation with both anxiety and depression. However, the posterior systems that she proposes for the regulations of autonomic arousal are diametrically opposite for these two effective states. Cerebral patterns for depression should include a relative rights frontel increase in activation, coupled with decreased activation of the right parieto temporal areas.

Hostility and autonomic arousal appear to be mediated by the right hemisphere. Therefore, exposure of high-hostile individuals to a cold presser stressor would be expected to result in increased physiological reactivity. Physiological arousal is produced in high hostile individuals which means that high negative emotional states have been induced. High hostiles are having higher depression scores than the low hostiles. (Demarce and Harrison, 1997 and Demarce, Harrison and Rhodes, 2000).

Sixty five women (aged 32-54 years) were assessed at two months before to eight months after total abdominal hysterectomy on four separate occasions. High dysphoric and low dysphoric women were compared with regard to hysterectomy outcomes. Married nulliparae suffered from enhanced depression in post-surgery. Pre surgery anxiety, back pain and lack of dyspareunia contributed to post-surgery anxiety. Pre surgery anxiety was
related to life crises. Pre and post surgery hostility occurred in conjunction with poor sexual gratification. Post hysterectomy health improved but quality of sexual relationship was impaired. Partner support and knowledge counteracted hysterectomy aftermath. Post hysterectomy symptoms constituted a continuum to pre-surgery signs of depression, anxiety and hostility (Ewalds-Kvist et al, 2005).

The 14 years longitudinal study (Heponiemia, et al, 2006). Independent association between perceived social support and the 5-year progression of depressive tendencies while taking into account the potential effects of childhood/adolescent anger and later hostility. The results showed that higher levels of perceived social support were associated with the decrease of depressive tendencies prospectively and after 5 years. This association persisted after adjusting for childhood/adolescent anger and later hostility. In addition, hostility was strongly related to the 5-year increase of depressive tendencies and higher levels of depressive tendencies. Social support may therefore be a long-term protective factor from depression irrespective of personality characteristics, such as hostility and anger.

Low and stocker (2005) were examined relationship between parents depressed mood, marital conflict, parent-child hostility and children's adjustment in a sample of 136 ten-year olds and their parents. Results showed that both mother's and father's depressed mood and marital hostility were linked to parent child hostility, which in turn were linked to children's internalising problems. Father's depressed mood was linked to children's internalising problems indirectly through father-child hostility. Father's depressed mood was directly linked to children's externalising problems and indirectly linked through father-child hostility. For mothers, marital hostility was directly linked to children's externalising problems, and marital hostility
in father's was indirectly linked to children's externalising problems through father-child hostility.

Weiss et al (2005) examined the association between hostility, level of depressive symptoms, and smoking in a sample of 1699 ethnically diverse students in California. Self-reports were collected twice from each student, at the beginning up the 6th and 7th grade years. Among 6th graders who had not smoked, depressive symptoms and hostility were associated with smoking initiations by the 7th grade. Among those students who had already tried smoking, increase in depressive symptoms and hostility were associated with more frequent smoking. The association between hostility and smoking was stronger for students reporting higher levels of depressive symptoms.

In a study of Benazzi and Akiskal (2005) consecutive 348 bipolar-II (BP-II) and 254 unipolar (UP) major depression disorder (MDD) outpatients were interviewed with the structured clinical Interview for DSM-IV, the Hypomania interview Guide, and the family history screen. Borderline personality, a confounding variable, rare in the FB setting, was excluded. Irritability was defined according to DSM-IV-TR, which includes various features of hostility and anger. Depressive mixed state (DMX) was defined as a major depressive episode (MDE) plus three or more concurrent intra depressive hypomania symptoms, whether it occurred in BP-II or MDD. The analysis show that irritable-hostile depression is distinct from agitated depression. Whether arising from a BP-II or MDD baseline, irritable-hostile depression emerges as a valid entity with strong links to external bipolar validations, such as bipolar family history. Irritable hostile phenomenology in depression appears to be strong clinical marker for a DMX.

The objective of the survey was to compare depressive symptoms in depression with and without a concomitant organic disease. No significant difference was found between the two groups in terms of anxiety or cognitive
symptoms, fatigue or feelings of disability. The results do not indicate any symptom that is specific to a combination of depression and somatic diseases. Guilt and hostility showed a lower level in depression associated with a concomitant somatic disease than in isolated depressions. (Guelfi, et al, 2004).

Suarez, et al (2004) investigated the relation of hostility and severity of depressive symptoms, separately and jointly, to the capacity of blood monocytes to secrete an array of cytokines when stimulated by bacterial lipopolysaccharide (LPS). Subjects were 44 healthy, non-smoking, premenopausal women (aged 23-49 years) not currently taking oral contraceptives. In the analysis, higher hostility scores were associated with greater LPS-stimulated expression of interleukin (IL-1α) and IL-1β. Higher depression scores were associated with greater expression of TNF-α (tumor necrosis factor). Thus, in healthy women, these psychological risk factors, alone and in combination, induce a pro-inflammatory phenotype in circulating monocytes characterized by the up-regulation of pro-inflammatory cytokines, supporting the hypothesis that inflammations may be a key pathway whereby hostility and depressive symptoms contribute to atherosclerosis and subsequent coronary heart disease (CHD).

Dracup, et al (2003) studied patients with heart failure (HF) to determine if perceived control reduces emotional distress (ie anxiety, depression and hostility) in chronic, debilitating cardiac illness and whether the demographic, clinical and psychologic characteristics of patients with high and low perceived control differed. Psychological assessment of 222 patients with heart failure found that patients with high-perceived control had significantly greater 6-minute walk distances and less emotional distress — patients with low perceived control had high emotional distress that is high level of anxiety depression and hostility.
Borgherine, et al (2002) assessed social adjustment in 145 depressed patients using the self-reporting social adjustment scale to evaluate the contribution of demographic and clinical variables and examine social functioning at different levels of depression. The results indicate that the presence of psychopathology in association with interpersonal sensitivity, hostility and perceived social support aspects - and not the severity of current depressive symptoms - were the most important factors effecting social adjustment. Social disturbances are more pronounced in severe depressives who experience difficulties in all areas by contrast, patients with low depression symptom levels do not appear to be maladjusted, by comparison with a unity sample.

Sandhya, et al (2004) studied the data from the national Drug Abuse Treatment Outcome Studies (DATOS) to investigate the association that pretreatment depression and hostility have with drug use and criminal behavior at the year and 6-year follow-up in patients with and without additional treatment involvement in the year prior to each follow-up. The total sample includes 727 patients at one-year follow-up and 432 patients at five-year follow-up. Multiple logistic regression analysis revealed that greater depression predicted less drug use in the year preceding each follow-up, where as greater hostility predicted increased drug use and more arrests at each follow-up.

Bag, et al (2005) aimed to evaluate anxiety, depression, hostility and psychological symptoms in patients with migraine and tension – type headache (TTH) and to compare the result with healthy controls. Seventy-five subjects with migraine and 55 subjects with TTH and a control group including 73 healthy subjects were studied. Compared with healthy controls, the patients with headache had significantly higher scores on measures of
anxiety, depression and hostility and lower scores on psychological symptoms.

Hatch, et al (1991) administered a battery of standardized psychomotor tests to a group of 47 episodic tension type headache sufferers and 47 headache-free controls. Compared to controls, headache subjects showed higher levels of anxiety, depression and anger/hostility. The groups did not differ significantly on a measure of anger expressed toward persons or objects, but headache subjects showed significantly greater levels of suppressed anger (hostility). The results provide productions and interrelationships among anxiety, depression and anger/hostility for developing psychosomatic illnesses.

Miller, et al (2003) explored the independent and interactive relationships between cynical hostility, depressive symptoms, and the expression of inflammatory Risk Makers for coronary heart disease. They found that depression was directly related to inflammatory makers, but hostility was not. A significant interaction between hostility and depression emerged.

Brummett, et al (2000) examined the relations of hostility with self ratings of depressive symptoms in 898 spouse pairs. Self ratings of hostility were initially examined as predictors of depression. The interaction of self into spouse hostility were investigated on three components of hostility (cynicism, aggressive responding, and hostile effect). Self ratings of hostile affect were positively related to depressive symptoms for both men and women. Self ratings of cynicism were also significantly related to depression, but only for men. All these components of spouse's hostility were positively related to one's own symptoms of depression for women.
Heponiemi, et al (2005) examined the moderating effect of employee hostility on the association of unit level resident characteristics (depression and behavioural problems) to individual-level employee's resident-related stress and psychological well being during one year follow-up study among 501 employees in elderly care. Result showed that employee hostility was associated with decreased psychological well being. Hostile employees reported increased resident-related stress irrespective of the population of depressed residents in the unit. Instead, non hostile employees were sensitive to the depression in the unit. They reported low levels of stress when depression level in the unit were low and increased stress when depression levels were high.

The fourteen year longitudinal study by Heponiemi, et al (2006) examined the independent association between perceived social support and the five year progression of depressive tendencies while taking into account the potential effects of childhood/adolescent anger and later hostility. There results showed that higher levels of perceived social support were associated with the decrease of depressive tendencies after 5 years and lower levels of depressive tendencies prospectively and after 5 years. In addition, hostility was strongly related to the 5 year increase of depressive tendencies and higher levels of depressive tendencies. Social support may therefore be a long term protective factor from depression. Irrespective of personality characteristics, such as hostility and anger.

Anger is a common and potentially, destructive emotion that has considerable social and public health importance. The occurrence of anger, irritability and hostility in depression have been known for many years, but the prevalence, significance for treatment and prognosis and the mechanisms involved remain poorly understood. More recently, anger attacks have been proposed as specific form of anger in depression. They are characterized by a
rapid meet of intense anger and a crescent of autonomic arousal occurring in response to trivial provocations. Though the presence or absence of hostility, anger and aggression in depression has been a matter of controversy, anger attacks have been found to occur more often in depressed patients in comparison to healthy controls. Some studies have reported that depressed patients with anger attacks differ from those without such attacks in terms of clinical profile, co morbid personality disorders and certain biological variables, serotonergic dysfunction may characterize this distinct subtype of depression – depression with anger attacks. (Paincely, et al 2005).

Psychological stress is accompanied by negative emotions and associated behaviours including depression, hostility, anger and aggression. (Lovallo, 1997). Depression and hostility were significantly related to a variety of negative health outcomes in an extensive reanalysis of data from a large number of studies (Booth-Kewely and Friedman, 1987).

Weiss's work on behavioural depression and uncontrollable aversion stress favours the view that the locus ceruleus is the critical site of altered control nervous system function, other work suggests that social stress can alter the serotonergic system associated with the brainstem raphe nuclei. Drugs that alter serotonin levels in the brain affect mood and behaviour, including feelings of depression and hostility, anger and aggression (Lovallo, 1997).

**Depression**

Women's greater risk of depression is one of the most consistent findings in psychiatric epidemiology. However, the explanation for this difference remains contested. Here possible explanations were tested using a sample of couples where, because they had experienced a life event that was severe for both members, both the woman and man were at risk of depression.
There was no evidence to suggest that the higher range of depression among women in this sample was the result of a measurement artefact. In addition, men were not more likely to develop alternative, externalising disorders to depression. If anything, women were more likely to experience and express anger about the life event. Consistent with an explanation based on gender differences in roles, women were only at greater risk of depression following an event involving children, housing and reproduction, and then only when there were clear gender differences in associated roles. Such a specific difference cannot be explained easily as a result of biological differences, particularly as among women rates of depression did not vary by parity. In conclusion it seems likely that women's greater ride of depression is a consequence of gender differences in roles, which lead to differences in the experience of life events (James, et al 1998).

Besser and Priel (2003) investigated the effects of self criticism, dependency, and attachment variables in depression among couples. They utilized a multi source design that involved self reports of personality and depression. This approach enabled them to explore the patterns of relations between self reported and the spouse's report of the partner's view of self criticism dependency and attachment dimensions, as well as the contribution of the latter to the moderation of distress. Participants were 120 couples in their first marriages. It was found that (1) self -and spouses' reported self criticism are both associated with depression; (2) negative assessment of personality factors and attachment models by the self and spouse contribute uniquely in predicting depressive symptomatology: and (3) beyond the co variation between targets depression and marital maladjustment, attachment models of self and of other as reported by both the self and spouse moderate the effects of self reported personality vulnerability on depressive symptomatology. Our results indicate that self-ratings and ratings by others
must both the considered in the context of depression in close interpersonal relationships.

Eystein (2003) has conducted a cross-sectional study with survey methods and clinical examination, to examine the relationship between anxiety disorders and depression and various health problem in the general population. The sample sizes was 60869 – individuals aged 20-89 years. Multivariate nominal logistic regression analysis were used to investigate the relationship between somatic variables and the anxiety/depression categories. And the study concluded that, somatic health problems carry a high risk of both anxiety disorder and depression. Active identification and treatment of these co-occurring mental disorders are of practical importance. There is a high occurrence of depressive symptoms in patients with somatic health problems. About one-third of individuals with somatic health problems have anxiety disorders and/or depression. Co morbid anxiety disorder and depression are found to be more strongly associated with somatic health problems than pure anxiety disorder and pure depression.

The coping strategies and coping resources are found to be associated with depression and play a mediating role in determining the development of depression. Kikhavani and Kumar (2005) investigated the life events and coping resources in predicting the meet of depression. And it is concluded that, significant difference between depressed and healthy group with regard to the stress experienced due to different life event was noted.

Study by Bazargan (2005) applied the behavioural model for vulnerable populations framework to examine the correlates of depression and the receipt of medical treatment among low-income Hispanics and African Americans residing in public housing. The study compared three groups: those who reported (1) self diagnosed but without physician-diagnosed depression, (2) depression diagnosed by a physician but who did not receive
pharmaceutical treatment, and (3) depression diagnosed by a physician and antidepressant pharmacotherapy consumed by patient. Random samples of 287 adults from three public housing communities were surveyed. Over 48% of this sample reported being depressed also said that a physician had never diagnosed depression also reported taking anti depressant medication. Untreated depression among underserved racial and ethnic minorities is alarming and points to an urgent need for intervention.

Stress and Depression

Development of depression due to central nervous system alterations associated with uncontrollable stress. Exposure to uncontrollable shock (stress) and chemical manipulation of Norepinephrine (NE) in the locus ceruleus lead to behavioural changes corresponding to six of the eight clinical signs of human depression. These are:

(1) Poor appetite and weight loss.
(2) Poor performance on tasks requiring psycho-motor performance.
(3) Loss of energy and apparent fatigue.
(4) Loss of interest in usual activities
(5) Sleep changes, including less sleep time and more fragmented sleep.
(6) Increased distractibility and indecision. (Weiss, 1980).

Evidence from recent research (Kessler, 1997) on the relationship between stressful life experiences and depression, suggests that acute stressful life events can lead to the recurrence of episodes of major depression. Early research in life stress and depression was almost exclusively concerned with life events. Chronic role related stresses are significantly associated with chronically depressed mood (Mirowsky and Ross, 1989, Pearlin, 1989).

Jacob (2003) explored etiological factors of depression in the social context. And it suggests that stress can be a predisposing, precipitating, or
perpetuating cause or even the consequence of depression. Depression in people with good coping abilities is usually of short duration (less than 3-6 months) compared to people with dysfunctional coping patterns who present with long histories.

With the ever-increasing styles of stressful life events, the incidence of mental illness has increased. The most common and widespread illness, which seems to exit everywhere, so depression. According to World Health Organization (WHO, 1982), there to five percent of the world population suffered from depression (Bano et al 2003), Weissman and associates (1978) estimated that over a life time 25 percent of the general population experienced at least one clinically significant episode of depression. WHO has predicted that by 2020, the world would be more mad and sad.

The cognitive behavioural theory on the other hand, emphasized the role of intra psychic factors in the etiology of depression. According to this approach, individuals develop depression symptoms because they had negative schema, which Beck (1967) had called 'Cognitive Triad' once activated preserves itself through a cyclical process. This dysfunctional attitude causes them to become depressed.

**Depression and Personality**

Smith, McGurie and Fox (1971) studied 50 consecutive patients with primary depressive illness using personality inventory scales failed to reveal any significant differences between the personality substructures of those with early and late onsets (cited in Friedman et al., 1974).

Henry, et al. (2003) found evidence of a mental suppression effect between anxiety and depression on an individual's level of commitment within escalation dilemmas. On the one hand, our results demonstrates a positive relationship between anxiety and level of commitment; on the other,
our results demonstrate a negative relationship between depression and level of commitment. Based on the opposing relationships between anxiety, depression and commitment, the broad factor of neuroticism does not demonstrate any relationship with level of commitment, and the significant effects of anxiety and depression on commitment is contingent upon partiailling the effect of the other facet of neuroticism. Thus, we content that applied psychologists, who have focussed on neuroticism as a broad construct, should consider the large body of work among clinical psychologists, who argue that anxiety and depression have unique variance associated with them.

Coping strategies, such as working harder and negotiation, may have an effect on depression for employed Korean immigrant wives. Additionally, income and education have been associated with depression in previous research. A cross-sectional survey design research was used to explore which coping strategies and demographic variables were significantly related to depression for employed Korean immigrant wives Chung, et al. (1999) aimed that the results of multiple regression analysis revealed that coping strategies and demographic variables accounted for 24% of the variance in depression. Specially, as wives worked harder cleaning the house, their depression increased, whereas when they negotiated with their husbands, they were less likely to be depressed. To enhance negotiation among Korean wives, mental health nurses need to work within the community to foster the development of cultural and traditional norms that sanction negotiation between husbands and wives.

Education and income have been associated with depression. Shew (1992) found that Korean women with higher education levels reported significantly less depression than their counterparts. For Korean immigrant women, education was related to satisfaction with life, and satisfaction with
life had a strong negative relationship with depression (S. Kim, 1993). Likewise, for Korean immigrants a significant negative relationship has been found between depression and income (Hurb and Kim, 1988; Noh and Avison, 1992). Last, children have been associated with depression for working mothers who assume full responsibility for childcare (K.C. Kim and Hurb, 1988; Kopp, 1992; Rhee, 1998: Spurlock, 1995) (cited in Chung, et al., 1999).

The purpose of this study was to determine which coping strategies (working harder, negotiation, or both) and demographic variables (employment, number of children, education, personal income, and family income were related to depression for employed Korean immigrant wives. Negotiation was defined on discussion with the husband about his sharing the household responsibilities (Chung et al., 1999).

The past decade has given rise to an increasing interest in relationships between goal setting and depression. Significant relationships have been identified between goal type, goal framing, goal difficulty and goal organisation and depressive experiences. The present paper explores individual's motivations controlling goal setting and their relationship to rumination and depression. Findings indicate that whilst some individuals make their personal well-being conditional upon general life achievements, others make the achievement of only one or two specific goals a prerequisite for personal happiness. This specific process has been named conditional Goal setting (CGS). Findings suggest that CGS is significantly related to depression. This relationship appears to be mediated by rumination with CGS of achievement goals but not CGS of relationship goals. (Helen, 2001).
Previous studies have shown the medical community to exhibit a relatively high level of certain mental health problems, particularly depression, which may lead to drug abuse and suicide. (Reidar and Per, 2002) reviewed prospective studies published over the past 20 years to investigate the prevalence and predictors of mental health problems in doctors during their first post-graduate years. They selected clinically relevant mental health problems as the outcome measure. They found nine cohort studies that met our selection criteria. Each of them had limitations, notably low response rate at follow-up, small size, and for short observation period. Most studies showed that symptoms of mental health problems, particularly of depression, were highest during the first postgraduate year. They found that individual factors, such as family background, personality traits (neuroticism and self criticism) and coping by wishful thinking, as well as contextual factors including perceived medical school stress, perceived overwork, emotional pressure, working in an intensive care setting, and stress outside of work, were often predictive of mental health problems. The studies revealed somewhat discrepant findings with respect to gender.

Helen (2002) offers a new theory of conditional goal setting within a comprehensive overview of the literature on goals and depression. The past decade has seen a growing interest in the relationships between goals and depression. Several researchers have suggested that the content and framing of important goals are indicative of vulnerability to depression. To example, individuals valuing relationship goals above achievement oriented goals have been found to have a greater sense of well being than individuals placing achievement goals above relationship goals. Other researchers have focused on the processes of goal pursuit. They have identified relationships between actual/ideal discrepancies, perceived progress to goal achievement and levels
of depression. Reactions to goal loss and goal failure have also been an important topic of goals and depression research with a focus on the vulnerable individuals inability disengage from important failed goals. Although many of the goal theories examine what goals depressed individuals have set and how they are pursued, little research has examined why certain goals are made important. Conditional goal setting offers an explanation for the motivations controlling the setting of important goals in the individuals vulnerable to depression. It is significant in that it describes a relationship between goal setting and depression that exists irrespective of goal success or failure.

Christian (2003) evaluated the Friedman-Schwartz hypothesis that a more accommodative monetary policy could have greatly reduced the severity of the Great Depression. To do this, they first estimate a dynamic, general equilibrium model using data from the 1920s and 1930s. Although the model includes eight shocks, the story it tells about the great Depression turns out to be a simple and familiar one. The contraction phase was primarily a consequence of a shock that induced a shift away from privately intermediated liabilities, such as demand deposits and liabilities that resemble equity, and towards currency. The slowness of the recovery from the Depression was due to a shock that increased the market power of workers. We identify a monetary based rule, which responds only to the money demand shock in the model. They solve the model with this model to all the estimated shocks. Based on the model analysis, it is conclude that if the counterfactual policy rule had been in place in the 1930s, the Great Depression would have been milder.
Major depression in a multifactorial disorder. Previous studies have mainly evaluated work stress to determine the risk factors for depression among workers. The present study by Tokuyama, et al (2003) were aimed to determine factors predictive of the first depressive episode one year later among white collar workers, and to examine whether work stress in associated with an elevated risk of depressions. A fine year open-cohort study was carried out in a Japanese company. Ninety-eight first onset cases were compared with 1267 never ill cases. Forward stepwise multiple logistic regression indicated that the first onset of depression was associated with a part history of panic attack, neuroticism, perceived over protection, poor support and low care. First onset cases were more likely to have had objective work events but they did not differ from never ill cases in subjective job stress. The development of major depression in white collar workers is associated with multiple factors, as in depression in the community.

**Depression in the workplace**

With the sustained economic recession, suicide has been increasing in Japan (more than 3000000 victims annually since 1998). Particularly among middle-aged employees. Development of preventive measures in needed, however, employees have limited knowledge of the basic information about suicide and depression. One office in Sitama prefecture, Japan, has been provided with a mental health support programme. An initial questionnaire survey was conducted in December, 1999. It contained demographic data and information about working styles and daily habits, including alcohol and tobacco use, quality of sleep, social support, the general well-being schedule, and knowledge/attitude toward depression and suicide. Of 225 eligible people, 216 men and women participated. Most of them had stressful
schedules and demanding jobs. Their subjective well-being was generally poorer relative to the reference. The mean score of the knowledge was 10.5 (S.D = 2.02) for 14 items. The accuracy rates ranged from 97.6% incorrect (false) for such items as Most suicide victims consult psychiatrists before their deaths to 42.1% correct (true) for A succeeded individual tends to be accident prove for traffic accidents and injuries. 'One-fourth of them had unfavourable attitudes toward depressive colleagues. Neither age nor gender was related to knowledge level and attitude. Variations were observed in the knowledge that employees had toward depression and suicide. A program that provides employees with appropriate information related to mental health is needed. (Nakayama and Amagasan, 2004).

Coping styles influence levels of stress. The study by Baugher (2004) examines low workers cope with regards at work and whether unions help workers cope more effectively with those hazards. Problem focused strategies to cope with those potential risks reduced anxiety and depression. Aside from supervisory or managerial authority, which is not available to most workers, he found that only one factor effectively moves workers who are in subordinate positions to actively cope with hazards membership in an independent labour union. These findings also suggest that union growth could indirectly reduce job stress by giving workers of the voice to cope effectively with job hazards.

Takeaki, et al (2006) conducted a screening for major depression in the workplace by using mandatory testing diagnostic accuracy of a two item questionnaire. They studied 1621 workers, completed both the POMS Questionnaire (profile of Mood states) and DSH-IV interview for MD (Major depression) at an institute in Tokyo-Japan. The prevalence of MD was 3.5%.
in total. The item feeling blue had the lightest area under the receiver operator characteristic curve (AUC) in both women and men. And it is concluded that simply ascertaining a mood of "feeling blue" may be a convenient and time-efficient strategy to screen for MD in both female and male workers.

Ghufran (2006) designed to study the effects of women empowerment and self-esteem on depression in housewives and working class women in relation to their age. Sample of 120 women was selected in such a manner that half of the women were young (age ranging from 25 to 40 years) and remaining half were old (age ranging from 60 to 75 years). The results of the study revealed self-esteem to be a moderating factor of depression in women. The higher mean depression score of women who were not empowered by their family members were more prone to depression. The difference between the mean depression scores of young housewives and the mean depression score of working women of the same age was statistically not significant at .05 level of confidence. The result suggest that the women who were working in government and semi government establishment were experiencing as much depression as those women who were not in job.

Noda, et al (2006) report a case in which they found that the conventional Japanese business model did not make occupational stress problem in the sense of vitality of company's employee from the view point of "healthy company" and "health people". They also suggest that positive workplace atmosphere had influenced in preventing mental health problems. The "unhealthy company" was reproduced to "healthy company" by "healthy people".
Muntanera, et al (2006) identified low wage workers represent an ever-increasing proportion of the US workforce. A wide spectrum of firms demand low-wage workers, yet just 10 industries account for 70% of all low-paying jobs. The bulk of these jobs are in the services and retail sales industries. In health services 50% of all workers are low-paid, with nursing aids, orderlies, personal attendants, and home care aides earning an average hourly wage - a wage that keeps many of these workers hovering near or below the poverty line. Nursing assistants also tend to work in hazardous and grading conditions. In empirical studies of low-wage workers, country level variables are of theoretical significance. Multi level studies have recently provided evidence of a link between county-level variables and poor mental health among low wage workers. Emotional strain have a statistically significant association with depression symptoms in this populations. Yet when controlling for county-level variables of poverty, the organizational-level variables used were no longer statistically significant predictors of depression symptoms.