Chapter-III

REVIEW OF RELATED LITERATURE

3.1. Stress At Workplace

Stress at work resulting from increased complexity of work and its divergent demands has become a prominent feature of modern organizations extending impairing effects on employee's physical as well as psychological well-being. Though a moderate degree of stress has been noted to be 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 (Srivastva, 1991).

Job stress can be defined as a condition in which factors associated with the work environment produce negative psychological and physiological effects (Vreeland and Ellis, 1969). Job stress has its roots in work environment and its effects on job attitude and behaviour and mental health of the employees are determined by various co-existing organizational and personal characteristics (Srivastva, 1991). Many Indian researchers have found out significant relationship of job stress to a host of organizational variables, such as organizational climate, organizational effectiveness, work motivation and job satisfaction (Mishra, 1987; Helode, 1989; Mishra, Pattanayak and Das, 1989; Gangopadhyaya, 1991).

Several investigators across the globe have found human service profession to be a stressful occupation. Studies of various groups of human service professionals e.g. nurses, physicians, teachers, social workers (Beehr and Newman, 1978; Olkinuora, Asp, Juntunhen, Kauttu, Strid and Äärimaa, 1990; Ullrich and Fitzgerald, 1990; Richardsen and Burke, 1991; Ghosh, 2000; Burke and Greenglass, 2000; Jain, Mishra and Kothari, 2002; Glazer, 2005; Gersch and Teuma, 2005) indicate the vulnerability of this group in stressful work situation. In Pakistan, Niaz, Hassan and Ali (2003) conducted a study on family physicians, specialists and house officers. It was found that 34 percent of the women physician reported high level of stress. The level of stress was high among house officers 32 percent and specialists 21 percent than family physicians 12 percent. It was concluded that most of the
physicians perceived high or moderate level of stress. All the stressed physicians were less likely to enjoy their practice and stress in female physicians' leads them to take more time off work. Burke and Richardsen (1990) studied doctors and found that doctors under stress had more problems with patients, obtained less satisfaction from medical practice and had more negative attitudes about the quality of hospital and medical care and rated their quality of care lower. However, very little variance in job stress was accounted by demographic or work related variables. Recently, Suttinen, Kivimaki, Elovainia and Foma (2005) identified correlates of retirement thoughts and retirement preference in hospital physicians in Finland. Retirement thoughts and retirement preference were more common in doctors reporting low job control, poor teamwork and unjust supervisors than in doctors perceiving their working conditions more favorably. Earlier, Linzer, Gerrity, Douglas, Mc Murray, Eric, Williams and Konrad (2002) assessed predictors of stress in US Physicians and the adherence of predictors to the demand-control support model of occupational stress. Results showed that mean stress scores were 2.4 (potential range 1-5, 22 percent score 3 or higher). Job demands such as solo practice, work hours, time pressure and case mix predicted stress, as did less control of the workplace and hassles. Physicians stress worsened by work demands such as complex patients and time pressure in patients' visits. Cohen and Patten (2005) investigated the level of perceived stress, mental health and understanding and need for training programmes in Alberta Canada. It was found that females reported stress more frequently than males (40 percent and 27 percent). It was concluded that many residents experienced significant stressors and emotional and mental health problems. In India, Sharma (2005) conducted a study on doctors working in two private and government hospitals. It was found that government doctors experienced higher levels of stress than private doctors especially of various types of role stress. Rose and Rose (2005) reported that staff in services for people with intellectual disabilities reported high levels of stress and moderate level of burnout.

Gal (2003) studied the impact of work stress in the correctional environments and found that exposure to these stressors has a negative impact on both the mental and physical health of staff. Recently, in a comparative study, Griffin (2006) assessed sources of stress among officers and reported that correctional
environment officers experienced stress at their workplace. Further, gender differences were also found in the effects of workplace stressors on level of stress among officers. In India, Rishi, Upadhayay and Solanki (2004) conducted a study on forest officers and found a positive and significant relationship between stress, avoidance strategies and Type-A personality experience. Officers having Type-A personality experienced more role stress and used more avoidance strategies to cope with it. Overall 23.5 percent of sample was found to be experiencing high stress and ineffective coping. Wells, Colbert and Slate (2006) examined the male female probation officer's perception of stress. Overall findings suggested that female's probation officers exhibit greater signs of physical stress yet; remarkably reflect lower levels of occupational stress.

Marigson (1987) hypothesized that psychologists become stressed because of role ambiguity, the complex organizational and structural aspects of their work, and patient's positive perceptions of them. Recently, Gersch and Teuma (2005) studied educational psychologists and found that 58 percent of educational psychologists feel that their work is at least moderately stressful or more. The biggest sources of stress was cited as “amount of work” and in direct relationship to this, having "more administration time" was identified as the most likely reducer of stress. Earlier, Kniveton (1991) studied primary and secondary teachers and found that the strongest sources of stress were inadequate salary and poorly motivated students. Michailidis and Asimenos (2002) studied the degree to which the faculty, administrators and program coordinators working in higher education experience stress at work. Findings of the study showed that occupational stress has a negative impact on the degree of satisfaction with their achievement, value and growth, being strongest with faculty and coordinator (dissatisfaction with career opportunities, personal growth and skill utilization). Another outcome was the dissatisfaction of faculty with the organizational design structure and processes. Reid (1999) studied 189 female teachers and found that the teachers relation with colleagues and people cause strain in their job. Gardner and Leak (1994) examined stress among 102 college psychology teachers and found that the major source of stress among teachers was hostile comments from their students. Recently, Buckingham (2004) studied principals to examine their stress level and the associations among those stress levels,
work overload, role conflict, and self-efficacy. Results revealed that 82 percent of principals reported moderate or high stress. Stress was positively associated with work overload and role conflict. Self efficacy was found to be high and statistically independent of stress.

Stress is an apparent part of the workplace, especially in sales organizations. Price (2003) explored the relationship between job stress created by (values, incongruence, through role conflict, role ambiguity and role overload) and job satisfaction as well as turnover, as it pertains to sales organizations. A sample of 296 employees from 2 major US retailers was included in this study. The Work Stress Inventory was used. Study revealed that high levels of stress were related to turnover. Especially a low degree of stress associated with role ambiguity was positively related to turnover. The statistics supported that a lack of role overload stress was inversely related to turnover. Negative relation was found between stress related to role conflict or value incongruence and employees turnover. Postle (2002) argued that work is becoming increasingly complex for care managers working with older people in social service offices. Working with older people increases tension and ambiguity which further influences care manager’s working conditions which in turn contribute to increased stress levels and resultant staffing problems and affecting the quality of service given to older people. Bogg and Cooper (1995) compared executive level managers in government and business organizations in the United Kingdom. Those in government showed more stress symptoms and dissatisfaction than those in private industry. Gardiner and Tiggemann (1999) examined 60 female and 60 male managers and found that females in male dominated industries reported high job stress whereas they utilized an interpersonal oriented leadership style, whereas males in female dominated industries reported better mental health when they utilized such a leadership style. In India, Singh (1991) studied managers and found that stress leads to dysfunctional behaviour and frustration among them. Recently, Michailidis and Georgiou (2005) examined occupational stress among bank employees. It was found that employee’s educational level affects the degree of stress they experienced in various ways.

Eriksen and Ursin (1999) studied 1060 employees working in Norwegian postal service and found that individual with high job demands had high
level of job stress. Spielberger and Reheiser (1994a) studied 2389 working adults employed in university, corporate and military settings. Job stress survey was used to measures the differences in perceived severity, frequency of occurrence of job stress events and overall occupational stress. It was found that corporate employees reported higher levels of perceived severity of job stress than their counterparts, whereas military personnel reported that they more frequently experienced almost all of the job stress events. Recently, Rodriguez-Calcagno and Brewer (2005) explored job stress among 219 Hispanic professionals. Stress was measured by Job Stress and demographic questionnaire. Results indicated that Hispanic professionals experienced higher levels of job stress than do individuals in a normative group. Females reported significantly higher levels of job stress than male professionals.

3.1.1. Job Stress Among Nurses

Job stress refers to a situation wherein job related factors interact with the workers to change, disrupt or enhance, his or her psychological and physiological condition such that the person is forced to deviate from normal functioning (Dhar, 1991). Cooper and Marshall (1976) suggested that by job stress is meant negative environmental factors or stressors (e.g. work-overload role-conflict; poor working conditions) associated with particular job. Work stressors are events related to nursing work that are perceived as menacing and stress generating. These situations could be 'physical' such as workload, 'psychological', such as death of patients and incertitude of treatment, and 'social' such as interpersonal conflicts (Gray-Toft and Anderson, 1981b).

Over the years there has been growing concern about stress among nursing profession (e.g. Owen, 1995; O'Donnell, 1996; Dinsdale, 1998). Stress in nursing is a concern for a number of reasons. It can have an effect on the individual nurse, in terms of both physical and psychological health. Stress can result in financial costs for employing organizations. Furthermore, evidence suggests that stress may be a reason for nursing leaving their jobs. Impact of organizational stress among nurses will inevitably have an impact on patient care (Seccomb and Ball, 1992). In a comprehensive review on stress in nursing, Marshall (1980) emphasized that nursing can be stressful on two counts: (a) because competence as a skilled
worker is constantly on trial, and (b) because of constant awareness of vulnerability as a human being to the disabilities the nurses are caring for. Specific nursing or care giving also imposes particular and/or additional stresses among these professionals.

Nursing is, by its very nature, an occupation subject to high degree of stress. Everyday the nurses confront suffering, grief and death as compared to other people do. Many nursing tasks are mundane and unrewarding. Many are by normal standards, distasteful, even disgusting, others are often degrading, some are simply frightening (Hingley, 1984).

The Nursing profession, traditionally a feminine profession, has undergone many changes in contrast to its past. Now-a-days nurses are required to possess instrumental as well as expressive skills. In addition to nurturing sick patients, nurses are often required to participate actively in administrative work and policy planning that demand masculine attributes such as rational planning, decisiveness, assertiveness, and competition. Therefore, in addition to the stress associated with the fears of not being able to fulfill feminine gender role standard, nurses also feel stressful in work situations that require masculine characteristics (Tang and Lau, 1996). Bailey (1985) identified commonly reported stress among nurses as workload, patient care, and interpersonal relationships with colleague, knowledge of nursing and nursing skills types of nursing, bureaucratic-political constraints (Claus and Bailey, 1980). Similarly, Gray-Toft and Anderson (1981b) identified 7 major sources of stress within nursing: death and dying, conflict with doctors, lack of support, inadequate preparation, conflict with other nurses, workload and uncertainty over treatment. Professional relationship have often been cited as sources of stress and it would be possible to analyze, in relation to this aspect of the nurse-doctor relationship, decision making about patient care (McGrath, Reid and Boore, 2003). In a British study on ward sister and senior nurses, Hingley (1984) identified factors that causes stress: workload (both in terms of quantity and inability to provide the quality desired), relationships with senior staff, role conflict and ambiguity, dealing with death and dying, conflict between demands of work and of home, lack of job satisfaction related to low professional status and limited promotion prospects, interpersonal relationships with patients and relatives and with
colleagues and subordinates, inadequate physical resources, coping with change in technology and professional developments.

There is a growing body of research about stress in nursing and there are some general indications of the stressful nature of the job. Occupational Mortality 1979-1983 (HMSO) figures indicated that the suicide rates for female nurse was significantly higher than the national average. In addition, a nurse’s life expectancy at age 45 is 26.9 years, only a year more than a miner working below ground (25.9 years) (Morton-Cooper, 1984). Stehle (1981) has reviewed findings on stress in critical care nursing and reported that many of the stressors identified concerning working relationships between nurses and doctors and other health care staff. Communication and relationships with patient and their relatives, the high level of knowledge and skill demands the necessity to respond immediately in an emergency. The very high workload and understaffing, lack of support and inability to escape a break has also been identified as a significant stressors. Researchers have also suggested that the care of elderly patients is demanding, and it may be a stress-generating situation for the nursing staff. Investigations among geriatric caregivers showed that some situations related to patient care are perceived as stressful. Carter and Phillips (1987) identified stressors such as tiredness due to lifting of heavy and less mobile patients as well as emotional stressors related to the care of an important group of patients suffering from debilitating diseases and encountering death and dying on daily basis.

Ehrenfeld (1991) reported that the most stressful factors indicated by the nurses were: (a) unavailability of physician and impaired communication with them (b) lack of confidence in nurses’ knowledge and skills. Tyler, Carroll and Cunningham (1991) studied two groups from public and private sector health institutions with regard to occupational stress and its source and self-reported health and well-being. Study revealed that both groups reported similar high levels of stress experienced, most noticeably arising from high work loads and the experience of death and dying, group differences did emerge from an examination of the sources of stress, while nurses working in public sector were more troubled by high work loads, private sector nurses reported uncertainty over treatment as a more frequent source of
stress. There was no significant difference on self-report measures of mental and physical health. Nevertheless, overall nursing stress scores and physical symptomatology were significantly correlated, and workload was the best independent predictor of health and well-being.

Earlier, Jones, Jannman, Payne and Flick (1987) studied psychological stress in nurses employed in a large special hospital and caring for mentally disturbed patients who may be a danger to themselves or to others and found that nurses do indeed report relatively high levels of stress when compared to some other employed samples. In another study, Motowidlo, Packard and Manning (1986) reported that nurses experienced stress due to factors such as giving care to patients whose lives are endangered, high expectations of patients and families, excessive responsibility in work environment, working with unqualified and few personnel. Similarly, Ehrenfeld (1991) studied stress among nurses and found that inadequate professional training also leads to stress in nurses. Lee (2003) reported that nurses experienced low to moderate frequency of stress at their workplace. In Korea, Lee, Song, Cho, Lee and Daly (2003) found that Korean nurses reported higher levels of stress than nurses in Western countries.

Recently, Xianyu and Lambert (2006) conducted a study on nurses and found that workload, death, dying and conflict with physicians were the most predominant sources of stress among nurses. Healy and McKay (1999) reported that nurses rated their workload as highly stressful in terms of both frequency of its occurrence and its perceived effect upon themselves. Hall (2004) found that registered nurses identified stress, related to failure to meet patient’s needs, self-expectations, and workload and inexperienced colleagues. Hoffman and Scott (2003) reported in their study on nurses that those nurses who were working for 12 hours shifts, younger and less experienced showed higher levels of stress than colleagues worked for 8 hours. Jenkins and Elliot (2004) conducted a study on 93 nursing staff from 11 acute mental health wards. It was found that lack of adequate staffing was the main stressors reported by qualified staff, while dealing with physically threatening, difficult or demanding patients was the most stressful aspect of unqualified staff. Qualified nurses reported significantly higher workload stress than
unqualified staff. Approximately half of all the nursing staff showed signs of high burnout in terms of emotional exhaustion. A variety of stressors were positively correlated with emotional exhaustion and depersonalization. It was concluded that findings were consistent with the notion of burnout developing in response to job related stressors.

In a correlational study, Kennedy (2005) compared the levels of stress and burnout among 3 levels of nursing staff that is, registered nurses (RNs), licensed practical nurses (LPNs), and certified nursing assistants (CNAs). It was found that stress was significantly correlated with burnout. RNs had more stress and burnout than did other nursing staff, whereas CNAs reported moderate level of stress and burnout, and LPNs reported least. For the total sample, a significant correlation was found between stress and (a) inadequate preparation to meet the emotional needs of clients, and (b) performing job duties. Mean scores and measures of both stress and burnout were highest among participants on the intermediate/skilled care wards. These wards had the highest level of acuity and workload. RNs reported an inverse relationship between burnout and personal accomplishment as feelings of personal accomplishment decreased burnout increased. Boey (1998) found that nurses felt stressed with their working conditions and commonly adopted work related problem focused coping strategies to cope with their work stress. McLeod (1995) found that working with people who have severe mental illness is extremely stressful, and much more transference and counter-transference might be taking place between patient and inexperienced nursing staff. Recently, Glazer (2005) studied Israeli nurses to examine the relationship between shift patterns and role stressors and strain as well as the extent to which situational variables mediate the relationship between shift patterns and strains. It was found that nurses working fixed day (Vs rotating) shifts reported less strains, but more stressors. Individual and situational variables mediated the relationship between shift pattern and both affective commitment and intention to leave respectively. Bianchi and Regina (2004) studied a representative sample of cardiovascular nurses, to identify the sources of stress in the hospital setting and their ways of coping. A high response rate of 76.3 percent was achieved. The results
reported work conditions as the major source of stress for nurses and use of positive reappraisal to cope with the job stress.

Wolfgang (1988) compared the levels of stress among nurses, physicians and pharmacists, and found that nurses experience the highest levels of stress. However, it was also found that the amount of stress experienced by hospital nurses depending on the nursing department and/or type of care given. Numerof and Abrams (1984) found that nurses in intensive care units, emergency rooms and nurseries, report high levels of stress. Contrary to this finding, Later, Kerasiatis and Motta (2004) found that nurses in emergency rooms were not usually stressed by their work when compared to the other nursing group. Inconsistency in findings calls for more investigations on job specific stresses among nurses.

Several other investigators studied personality pattern among nurses. Majority of these studies found Type-A behaviour pattern to be a predominant personality type of nurses. Glazer, Stetz and Izsso (2004) examined Type-A, Type-B behaviour pattern, locus of control, and job stress across nations (Hungary, Italy, UK, Israel and USA) and cultures. Data were obtained from 2032 nurses (119, hospitals). Results showed that external locus of control was positively related to job stress, and this relationship was different across countries. Type-A was positively related to stress in Italy, Israel and USA, though correlations were not significantly different from each other across countries. Motowidlo, Packard and Manning (1986) found that the stressful events occur more frequently to nurses with strongly Type-A behavioral style, than their Type-B behaviour pattern counterparts. Also, strongly Type-A feel stresses regardless of how frequently or intensely they experience the stressful events.

In India, Parikh, Taukari and Bhattacharya (2004) explored nurse’s occupational stress and coping mechanism. It was found that nurse’s occupational stress appears to vary according to individual and job characteristics and work family conflict. Common occupational stressors among nurses are workload, role ambiguity, interpersonal relationships, and death and dying concerns. Shift work was highly prevalent among nurses and found to be a significant source of stress. Recently, Tankha (2006) investigated the effects of role stress in a sample of 120 nursing
professionals of government and private hospitals. It was revealed that male nurses experienced more stress as compared to females. Secondly, male nurses from private hospital showed significantly higher level of stress than the government hospital nurses on eight out of ten dimensions of organizational role stress scale (Pareek, 1981).

The preceding review demonstrates the prevalence of stress at workplace and among human service professionals particularly among nurses. Review indicates that majority of these researchers studied overall stresses at work. Very few investigators focused on job stresses considering the frequency and severity of job stress. What appears to be significant is to study frequency and perceived severity of job stress among nurses in line with other studies conducted on teacher, military personnel, university employees etc (Spielberger and Reheiser, 1994a).

As nature, type and demand across jobs and stressors emanating from them vary in terms of frequency and intensity, what is needed is to study these factors in different occupations. In view of this the present study intends to investigate the severity and frequency of job stress events among nurses.

3.2. Anger At Workplace

Anger is a feeling that arises from a situation that is not the way we think it should be or that we believed to be wrong or unfair (Mother Love, 2005). Anger has been defined as a strong emotion or experimental state occurring in response to real or imagined frustration, threat or injustice and the desire to terminate the negative stimulus (Biaggio and Maiuro as cited in Fine and Olson, 1997). We all feel angry sometimes. Some people express their anger, some suppress and some others tend to control their anger. Anger has consequences, and they often involve hurting other people more usually their feelings but sometimes physically. Anger can cause problems in our personal life and affect our work (Thomas. 2003).

In recent years, anger has received much attention from several researchers leading to several different theories on the topic, in particular, assumption that anger leads to aggression and violence (Robbins, 2000). However, research has shown that anger at work does not always lead to aggression and violence, instead its expression and suppression may lead to aggression and violence instead its.
expression and suppression may lead to other outcomes, such as breaches in interpersonal relationship, antisocial behaviour and revenge and that it may also effect organizational outcomes (Fitness, 2000). While anger is pervasive in today's workplace, there is a lack of theoretical and empirical research on the topic (Kiewitz, 2002). Anger, aggression and hostility have frequently been used in relation to each other or even interchangeably (Fernandez and Turk, 1995). Anger, aggression and hostility have adverse impacts on families, work settings, employee's and society (Blum, Kelly, Meyer, Carlson and Hodson, 1984).

Workplace aggression, or behaviour committed by employees with the intention of harming those with whom they work or have worked (e.g. Neuman and Baron, 1998), continues to be a significant and prevalent organizational problem. Its effects include lowered productivity, increased employee stress and absenteeism (Braverman, 1993), lawsuits, increased insurance premium, tarnished reputations (Atkinson, 2000), reduced customer satisfaction (Walkup, 1999), and costly property damage. Because of workplace aggression, organizations have to bear considerable costs these were estimated to $4.2 billion in 1992 (Bensimon, 1994), and to have risen in subsequent years (Laabs, 1995). Anger resulted at workplace due to wrong conditions inadequate salary, interpersonal conflicts, workers alienation, work harassment by supervisors and coworkers, lack of employment security and low job control (Bensimon, 1997) Not surprisingly, workplace aggression has garnered significant attention in both the popular media (e.g. Handerson and Juris, 1996), and organizational behaviour literature (e.g. Folger and Baron, 1996, O'Leary-Kelly, Griffin and Glew, 1996; Greenberg and Alge, 1998)

A role of anger, hostility and aggression has been investigated by several researchers at workplace (Vander Ploeg, Van Bumen and Van Brummelan, 1985; Droppleman and Wilt, 1993, Campbell and Muncer, 1994, Kiewitz, 2002; Anderson, 2002, Thomas, 2003) Fitness (2000) examined similarities and differences in anger experience amongst superiors, co-workers and subordinates. In addition the causes, features and consequences of workplace anger episodes were also investigated. He found that features of anger episodes were different according to the status of the respondents Superiors were found to be angered by morally reprehensible behaviours and public humiliation and subordinates were angered by
unjust treatments, and were found to be less likely than superiors to confront the anger target and more likely to consider the incident unresolved. Baron and Neuman (1996) studied workplace, violence and aggression among 178 employed persons and found that greater the extent to which several changes had occurred in subject's organization greater was the incidence of aggression and violence-reported. Monnier, Cameron, Hobfoll and Gribble (2002) conducted a study on fire emergency workers to examine the relationship between critical exposure and resource loss, as conceptualized by Conservation Resource Theory (COR) in predicting psychological outcomes (anger expression, depressive symptomatology, and state anger). Multiple regression analysis indicated that fire emergency worker's experience of critical incidents was directly related to symptom's of depression, outward expression of anger and state anger.

Rawat (1996) examined 200 school teachers and reported a positive and significant relationship between organizational role stress and anger. Maisto and Lester (1997) studied 47 elementary school teachers in New Zealand and found that job satisfaction was associated with scores on expression rather than suppression of anger, anxiety and depression. Nieto (2003) reported that teachers expressed high levels of anger at their workplace. It was suggested that anger sometimes develops into feelings of desperation and a desire to leave the profession. In Ontario, Hargreaves (1994) found that teachers felt angry about the reduction caused by increased work demands enhanced by reduced time, resources and professional development, which occurred due to changing world of teaching. Earlier, Sharma and Acharya (1989) studied engineers and found that those with high score on anger suppression or greater anger control utilized approach coping as a dominant mode to deal with role stressors.

Recently, Satar, Cenkseven, Karcioglu, Topal and Sebe (2005) evaluated anger levels of 62 medical and 54 surgical residents with regard to the department in which they worked, seniority, sex, satisfaction with their work environment, and number of night shifts worked per month. It was found that levels of trait anger were greater in their first two years. Mean trait anger levels were greater in the residents who were not satisfied with their department. Male residents had higher levels of anger than their female counterparts. Residents also clarified the
person and situations that made them angry at work. Similarly, Bartlett (2002) reported that physicians who were dissatisfied with their jobs tend to misdirect their anger. Michels, Probst, Godenick and Palesch (2003) studied the dimension of anxiety and anger experienced by a statewide sample of 350 South Carolina family practice residents. The findings indicated that residents reported lower levels of anxiety and anger across most dimensions compared with other residents and practicing physician population. It was concluded that these family practice residents did not experience excessive levels of anxiety and anger during residency training either as a trait, state or somatic response nor did they significantly suppress anger.

In a study on health care service, Thomas (2003) reported that anger and conflict will always present in the stressful health care delivery environment. Recently, Li Calzi, Farinelli, Ercolani, Alianti, Manigrasso and Taroni (2006) conducted a study on physical rehabilitation professionals including four categories that is nurses, therapists, physicians, and technicians. It was observed that feelings of anger have quite often emerged in the different groups of professionals at different levels (more or less expressed). No significant differences were found among 4 categories of professionals on anger, although feelings of anger at different levels were found to be repressed or manifested and more or less tending towards hostility. The respondents reported high levels of state anger while the trait anger levels were normal, together with a low level of anger temperament dimension. As for the expression of anger high scores were obtained in the anger towards inside scale rather than anger towards the outside or controlled anger scales. Gordon (1997) reported that professional care givers become so stressed by impossible demands of patients that they are unable to give care they would otherwise be able to offer and their frustration could turn to undifferentiated anger affecting their performance. Earlier, Helmer (1978) reported that child care worker felt anger due to their nature of work. Child care workers often express their anger destructively as well as constructively. Kassinove and Tafrate (2003) reported that healthcare professionals tended to get angry in response to patients anger. The initiation and expression of anger differed greatly and a multitude of variables determines whether anger results in challenging behaviour. In Norwegian, Skjorshammer (2003) examined the anger behaviour
among health care professionals as how it develops in the interaction between professionals and the consequences of anger behaviour on work cooperation. It was revealed that anger behaviour among doctors developed due to strained interpersonal relationship where contextual factors serve to lower the threshold for keeping such feelings private. Further, results revealed that anger behaviour in particular from doctors, was a major source of stress for the work day of nurses and had a negative impact on their work environment and professional cooperation and might even reduce the quality of patient's life.

Earlier, Vander Ploeg, Van Bumen and Van Brummelan (1985) indicated that organizational climate, role stress, and lack of social support also contributes to the level of environmental frustration and this frustration is associated with anger reaction and later on with hostility. Anger contributes to communication problem, disturbed interpersonal relationship and psychosomatic disorders, and is critical factor in motivating violent behaviour (Rothenberg, 1971). Sloan (2004) examined the relationships among extensive interaction with others on the job, occupational status and the experience and expression of anger in the workplace. The findings indicated that individuals who spend much of their time with others at work reported experiencing workplace anger more frequently than the other workers. The expression of anger was found to be associated with interacting with people at work, occupational status and relative status. Further, it was reported that individuals who deal with people at work were likely to discuss their experienced anger with someone other than the anger target, whereas individuals working in highly esteemed occupations were more likely than lower status workers to confront the target of their anger directly. Haynes, Feinleib and Kannel (1980) investigated three modes of anger management in relation to coronary heart disease (CHD). Results showed that low anger-out was associated with greater CHD in men, especially in the 55-64 age groups. Low anger-out, low scores on discussing anger and high anger-in were associated with greater CHD among employed women under 65 years of age. Begley (1994) found direct relationship between suppressed anger and health complaints among owners/managers of smaller business.
Recently, Kiewitz (2002) inquired into the role of anger at work by proposing a theoretical framework for studying workplace anger, labeled the Work Anger Model (WAM). In order to test the model, data were collected from 442 working adults by means of self-report questionnaires. Data analysis results supported the model for the most part. Analyses revealed significant relationship between organizational injustice, interpersonal transgressions, or breach of psychological contract and the measures of deviant work behaviour, namely personal and organizational deviance. Taken together the findings are interpreted to mean that workplace anger has considerable ramifications. However, while anger at work yields consequences such as a decrease in employee’s affective organizational commitment, overt expression of anger at work, and turnover, this does necessary entail that employees will engage in seriously deviant work behaviors.

Bernard (1990) reported that anger is produced when individuals consider someone to be fault or worth of blame, either for action they took or for actions they did not take. The very nature of police work involves arresting or taking into custody those who are accused of something illegal. Police officers encounter could be a source of anger for them. Wilson, Gross and Beck (1994) found that police officers angered by criminal suspects. Officers who experienced the most resistance from suspects expressed more intense anger, and reported feeling angry across number of situations also often internalized their anger. Sharma (2003) conducted a study on police officers and revealed that stress among officers lead to increased level of anger among them. Similarly, in a study on police officers, Mearns (1998) revealed that emotion of anger was prevalent among them.

Gianakos (2002) examined the influence of gender and gender role on anger experiences in the workplace. It was revealed that although gender did not influence workers anger expressions but feminine persons were more likely to cite relationship with coworkers as anger provoking than were undifferentiated persons. Sometimes employees experienced anger at work place out of job insecurity when their job is threatened due to downsizing by their employers (Schaufeli and Greenglass, 2001). The university of Lancashire study which included in-depth interviews with 24 men and women in management and non-management positions in a variety of job sectors found that anger at work may have both long and short
term consequences for individuals and their companies. It was reported that feelings of anger was prevalent among employees. It was concluded that anger most often erupts over immoral behaviour or when people feel they have been unfairly treated. Common triggers of workplace anger include incompetence, disrespect, failure to communicate or exclusion (Preidt, 2004). Similarly, Watson (2000) suggested that an individual felt anger and annoyance when treated unfairly by others at workplace.

3.2.1. Anger Among Nurses

Anger is one of the most powerful human emotions and has generally been associated with adverse social, psychological and physical consequences (Berkowitz, 1993; Tavris, 1989). Anger is considered as psychobiological emotional state that varies in intensity from mild irritation to intense fury and rage (Spielberger, 1999). Anger, hostility and aggression have frequently been used in relation to each other or even interchangeably (Fernandez and Turk, 1995). While anger and hostility both refer to feelings and attitudes, the concept of aggression is generally used to describe destructive and punitive behaviour and is regarded as behavioural reaction to provocation (Spielberger, 1988).

Anger can be caused by external or internal events. Person could be angry at a specific person (such as coworker, supervisor) and/or events (e.g. traffic jam, a cancelled flight) or anger can be caused by worrying or brooding about personal problems. Memories of traumatic or enraging events can also trigger our feelings (American Psychological Association, 2004). The workplace is one of the most interpersonally frustrating contexts in people’s lives (Allcorn, 1994; Bensimon, 1997) and it seems likely that anger and irritation are frequently experienced emotions. Anger is apparent in all occupational sectors (Booth, 2003).

The burden of care is increasing for nurses over past few years, complaints from patients, families and fellow nurses about hospital care have escalated. Professional caregivers (in particular, nurses) can become so stressed by impossible demands that they are unable to give the care they would otherwise be able to offer, and their frustration can turn to undifferentiated anger, affecting their performance and inevitably leading to the denial of comfort to patients and families (American Hospital Association and Picker Institute, 1997; American Hospital Association, 1997; Gordon, 1997; Gordon and McCall, 1999; Gordon, 1999; Norman, 1999; Burton, 1999).
Researchers have attempted to study the emotion of anger its causes and consequences among nurses (Thomas, 1997; Sherlock, 1999; La Duke, 2000; Greenglass and Burke, 2000; Thomas, 2003; Smit, 2003; Hegney, Plank and Parker, 2003; Baskin, 2004; Thomas, 2004). Nurses providing direct care for the patients with a condition that stimulate a negative reaction in the nurses delivering that care. Nurses encounter patients whose conditions evokes in the nurses themselves, a negative reactions such as anger and frustration (Drury, 2001).

Anger can be a fact of life for nurses due to features of a short staffing, hostile staff interactions, difficult patients, or stressors (Thomas, 2004). In a similar line as far as 1986, a study entitled “What Really Makes Nurses Angry” found that nurses felt angry due to issues as short staffing, lack of support from management, paper work and poor pay (Cosentino, 2005). Enid Mitchell, observed that anger among nurses is due to hard pressed schedule and being understaffed, which have been found to be a major factor of demoralization among them (as published in, Ontario Nurses’ Association, 1999). Nurses felt anger and defensive due to the stresses in their work (Griffin, 2003). Thomas (2004) reported that nurse got angry when they encountered unfairness, or had been devalued. They felt angry when coworkers behaved irresponsibly. A deep anger triggered among nurses triggered when nurses wanted to change something, but felt powerless to bring about the desired change. It was concluded that nurse’s anger was too intense, too frequent, too prolong, too punishing to themselves in a way suppressing their angry feelings inward and as well as expressing anger towards other at work. Vander Zyl (2002) examined the emotion of anger among nurses and its causes. It was found that nurses felt angry due to their contact with negative work environment and work related stressors. In addition to this, nurses felt angry because they felt useless in combating the overwhelming demands of the work environment.

Smith, Droppleman and Thomas (1996) interviewed female-registered nurse’s age range (29 to 56) with 7 to 34 years of work experience. It was found that nurses reported work related experiences of anger which they were used as a weapon to defend or advocate patients or self, as well as to attack doctors, peers, patients or self. Factors within the self as powerlessness versus control influenced nurse’s anger experience and expression. Similarly, Brooks, Thomas and Droppleman (1996)
investigated work related anger in male registered nurses by using phenomenological interviews. It was found that male registered nurses felt anger and described their work environment as hostile, causing them to be defensive and less productive. The sources of anger felt by nurses were attacks from physicians, coworker and managers. In addition, lack of assistance and support from peers, and differentiated treatment on gender were also found to be a source of anger. It was concluded that several relationships and feelings of guilt powerlessness, isolation, humiliation and incompetence were concomitant with or consequences of anger among nurses.

Recently, Nathaniel (2006) in study on nurses found that nurses continue to feel anger and blame those they believe were responsible for wrongdoing. Other nurses, administrators, and physicians in particular found to be target of nurses anger. In addition to anger, nurses experienced evoked emotions which included guilt, self blame, and sadness. Nurses directed their anger towards self or others. Similarly, Baskin (2004) found that nurses expressed anger at doctors. Nurses expressed anger in response to their unheard appeal for inappropriate medical treatment. The frustration led to intense expression of anger (Sundin-Huard and Fahy, 1999). In conflicting situations nurses often exhibited emotions in terms of resentment, sadness, guilt and anger (Powell, 1997). Similar findings were reported by (Darvas and Hawkins, 2002).

In a longitudinal study, Wells, Barnard, Mason, Ames and Minner (1998) found that nurses experienced insecurity and anger when they encountered with changes in work, as they found it very difficult to adapt to a new situation. La Duke (2000) investigated the effects of professional discipline on nurses and found that nurses expressed anger towards professional disciplinary process which they misunderstood. When management and other team members do not affirm or recognize the value of nurses with respect, anger and frustration become normative emotions within conversations (Umit-Ga, 2003). Jarvis and Daniel (2005) stated that nurses felt anger and undervalued at work due to uncertainty emanating from the delay in implementing agenda for change. In a study on nurses, Greenglass and Burke (2000) reported that hospital restructuring was a stressful and anger-provoking experience among nurses. Recently in an empirical study on nurses, Manter, Armstrong-Stassen, Harsburgh and Cameron (2006) examined the reactions of staff
nurses who did not receive sign-in bonuses (Incentives) which offered to attract nurses due to shortage of nursing staff. It was found that nurses who worked in hospitals that offer sign-on bonuses reported higher levels of anger and lower levels of optimism compared to those nurses worked in hospitals that did not offer sign-on bonuses. Greater anger and less optimism found to be associated with a reduced sense of distributive justice. Blaha (1995) investigated the perception of caring and uncaring behaviour displays towards staff nurses by nurse middle managers and also determine the effects of these behaviours had on staff nurses and on their patients care. It was found that in response to nurse middle managers caring behaviour, staff nurses reported feelings ready to work, learn and provide patient care and in response to uncaring behaviours, staff nurses reported feelings of anger, frustration, insecurity, self doubt and desire to escape with feelings directed at the nurse middle managers. Above studies indicate that anger is evident among nurses. Nurses feel angry due to administrative setting, their work-related stressors, and experience of being undervalued. Nurses tend to express as well as suppress their angry feelings towards self, and others at workplace.

In a systematic review of literature, Needham, Abderhalden, Halfens, Fischer and Dassen (2005) found that non-somatic effect of nurses to patient aggression/assault were anger fear, anxiety, guilt, self-blame, posttraumatic stress disorder and shame. Gerberich, McGovern. McGovern, Church, Hansen, Nachreiner and Geisser (2000) conducted a study on nurses to investigate the incidence and outcome, magnitude and consequences of work related violence. It was found that nurse's emotional reactions to violence were frustration, fear, stress and anger. Oweis and Diabat (2005) examined that frequency, severity, emotional reactions and coping behaviour in response to verbal abuse (e.g. judging, criticizing, accusing and blaming, abusive anger). It was revealed that most common emotional reactions of nurses were anger followed by shame, humiliation and frustration. In Australia, O'Connell, Young; Hutchings, Brooks and Lofthouse (2000) conducted a study on 209 nurses working in general ward setting and high dependency area. It was found that after experiencing either verbal or physical aggression from patients or their relatives nurses most frequently reported feelings of anger and emotionally hurt. Hislop and Melby (2003) investigated the lived experiences of violence among
nurses working in accident and emergency department of major acute hospital. It was found that nurses expressed feelings of anger, frustration and fear. It is evident from the above studies that nurses felt angry and emotionally hurt in response to patient’s aggression and assault.

Recently, Bongard and Absi (2005) assessed domain specific anger expression behaviour and subjective work stress in 218 nurses using 3 altered version of state trait anger expression scale (STAXI) and job stress survey (JSS). It was revealed that female nurses had higher scores on anger-out and lower on anger-control in original and in home version of STAXI but no sex differences were found in the work version of STAXI. Sharma, Sood and Spielberger (1999) studied 160 nurses and found that the more Type-A the nurses, the more likely was that they experience higher occupational (subjectively experienced) stress, trait-anxiety and anger feelings reaction than their Type-B counterparts. Type-A orientation nurses reported greater anger expression (ax/ex, ax/in, ax/out, ax/con) as compared to their counterparts with Type-B orientation.

In a phenomenological study on nurses, Drury (2001) found that nurses experienced the negative reactions such as annoyance and anger towards patients and colleagues when they perceived that the care provided by them was impeded. Similarly, Kushnir, Rabin and Azulai (1997) in a descriptive study on nurses revealed that nurses felt anger and suppress their angry feelings. Male nurses often felt angry when they perceived impeded quality of care they provided for the patient. Allan (2001) reported that nurse’s anger was directed towards patients with whom they were not emotionally attached or caring. Dunniece and Slevin (2000) conducted a study on nurses dealing with cancer patients. It was found that nurses experienced feelings of inadequacy and even expressed anger which was precipitated by poor communication and enclosure technique by medical staff. Recently, Sun, Long, Boore and Tsao (2006) reported that nurses felt angry towards those patients who were seeking attention. Michelsen, Löfvander, Eliasson and Schulman (1999) found that nurses felt anger and frustration and insufficient in a situation where patient’s unrealistic expectations occurred and also when disappointed and angry patients are demanding and consistently request for clarification from nurses about their treatment. In Australia, Hegney, Plank and Parker (2003) in their study on
nurses reported that nurses felt anger and frustration when they experienced difficulties in meeting patients' needs and inability to complete their work to their professional satisfaction in the paid time available.

In a study conducted on practicing general nurses working in acute general hospital setting, Santamaria (1993) reported that anger and frustration were the most common feelings among nurses. It was revealed that nurses experienced significantly high levels of anger and frustration in dealing with those patients, who exhibited difficult behavioral characteristics. Eckroth-Bucher (2001) conducted a study on nurses and revealed that nurses reacted with anger or feelings of rejection and even treat the patients in punitive manner who becomes uncooperative or resistant in response to care provided by nurses. In a descriptive study on nurses, Chase (2005) found that feelings of anger were very common among nurses when the care that they gave confronted with numerous work-related stresses. Nurses reported feelings of anger, cold and callous attitude towards their patients as a result of their frequent exposure to work related stressors. Some of the nurses stated that they felt angry with themselves and sometimes blames others. Coping techniques were used by few nurses so that their feelings of anger were not projected on to patients. In order to cope with their angry feelings nurses used approach as a dominant style of coping more frequently attempted to control the outward expression of angry feelings as well as avoidance as a dominant style of coping employed more frequently the anger-in as mode of anger expression.

In a group of studies on nurses handling HIV patients it was found that nurse’s anger was associated with their negative feelings/attitudes towards patients who, according to them contracted the HIV as a result of their lack of responsibility. Thus making a distinction between those so called “deserving” victims and those patients who are “innocent” victims nurses behaves differently with patients (Hunter and Ross, 1991; Breault and Polifroni, 1992; Cole and Slocumb, 1993; Van Wissen and Woodman, 1994; Smit, 2005). Smit (2003) reported that nurses expressed anger towards patients suffering from HIV/AIDS and treated them with immense disrespect and unappreciative of the care they received from the nursing staff. Above studies revealed that nurse reported feelings of anger toward patients due to numerous reasons such as patients’ unrealistic demands, seeking attention behaviour, dealing...
with patients who exhibited difficult characteristics, uncooperative and resistant patients, nurses own negative feelings and attitude towards patients and their frequent exposure to work related stressors.

A number of studies have found hostility and aggression among nurses (Muff, 1992; Campbell and Muncer, 1994; Sherlock, 1999; Robert, 2000; Greenglass and Burke, 2000; Thomas, 2003). Majority of these studies indicate that most of the nurses were hostile and aggressive during their work schedule. Thomas (2003) reported that nurses fight with each other (e.g. horizontal hostility) when they felt anger towards those in power including physicians, supervisors and administration but could not vent anger and tend to suppress their feelings and manifest their angry feelings by fighting to each other. Similarly, it is evident from other research data on nurses that nurses tend to express their anger verbally towards colleagues (Brooks, Thomas and Dropleman, 1996; Smith, Dropleman and Thomas, 1996). Some other studies indicate anger expression as predominant mode of coping with angry feelings (Kelly, 1998; Sherlock, 1999; Robert, 2000). Earlier, Gentry, Foster and Forehling (1972) studied working conditions and hostility among nurses and found that nurses in coronary care unit were more hostile than nurses in medical surgical wards due to their working conditions which they dislike but medical-surgical nurses were not found to be hostile although working in the same kind of surrounding and had essentially the same duties to perform.

Later, Campbell and Muncer (1994) revealed in their study among nurses that occupational role and sex were both important correlates of individual’s representation of aggression. In a study conducted on nursing, Pillemer and Hudson (1993) found that nurse’s angry feelings towards doctors motivated their aggressive behaviours which often expressed in physical acts as well as in a verbal form. Similarly, Sherlock (1999) studied 207 registered and practical nurses to investigate verbal aggression of nurses among themselves. Findings revealed that the most frequently encountered type of verbal aggression towards each other were anger, judging, criticizing, and condescension.

Thomas (2003) reported that nurse’s exhibit mismanaged anger quite frequently in the form of outward expression of anger. These expressions are often directed towards other in a destructive manner. Similarly, Dropleman and Thomas
(1996) reported that nurses experienced anger at workplace and their expression of anger was self-destructive. It was suggested that nurses should express their angry feelings in a constructive manner so that they make a real change in the workplace. Redman and Fry (2000) reported that at least one third of the nurses in their study experienced moral distress and as a consequence of moral distress nurses experienced anger, guilt, insecurity, low self-worth, and developing aggressive behaviour patterns (Davies, Clarke, Connaughty, Cook, MacKenzie, McCormick, et al., 1996; Kelly, 1998; Krishnasamy, 1999). Investigators found that an inadequate work environment structure, excessive bureaucracy within health care system and societal lack of regard for nursing profession, contribute to workplace anger and frustration among nurses. Researchers suggested that nurses can turn their work related anger into an empowering experience by constructively focusing their positive energies on positive changes and nurses should assess the reasons for their anger, communicate their feelings to others and organize to effect change (Droppleman, 1997; Helge, 2001).

Taken together majority of these studies indicate that feeling of anger besides their hostile and aggressive behaviour is quite frequent among nurses.

3.3. Depression At Workplace

The problem of depression is universal. It is one of many aspects of human conditions. The true or essential nature of depression is controversial (Anuradha, 2001). We all feel depressed at times, although we may call the feelings are normal part of life for children and adults (Quay and LaGreca, 1986). The term depression has been used to refer to a mood, a symptom, and a syndrome (Romano and Turner, 1985). Kahili (1988) reported depression as a symptom of work related stress.

Depression is generally considered to the most prevalent of all diagnosed mental disorders (Moran and Lambert, 1983; Wolman and Stricker, 1990; Roberts and Gotlib, 1997). Symptoms of depression vary in severity, from feeling sad or gloomy for a relatively short period of time, to deep despair, extreme guilt, hopelessness, and thoughts of death that could result in suicide. Persistent depression can also produce behavioural and physical symptoms such as fatigue, insomnia, impotence, frequent crying, chronic aches and pain, an excessive gain or loss in
weight (Rosenfeld, 1999). Clearly, depression is a complex multifaceted syndrome, which is comprised of a number of underlying dimensions.

Depression in the workplace has a big impact on workers and their employees (Gonzalez, 2005). Depression was identified as a widespread, pervasive problem in general population and at workplace (Vernarec, 2000). Sullivan, LaCroix, Russo, Swords, Sornson and Katon (1999) suggested that even a mild depression might have been significant in workers with co-existing medical conditions. Depression and depressed mood pervaded many work settings. Depressions have been found to affect as much as 10 percent of the worldwide work (Olson, 2000). There has been a great deal of public and corporate concern in recent years about the impact of depression in the workplace (Goetzel, Ozminkowski, Sederer, Mark, 2002; Doherty, 2002). Depression was found to be an individually lived multifaceted disconnecting and imprisoning experience. Those who experience it had difficulty in responding to the enormity of the actual experience. Care experience and depression are interchangeably linked, with relational responses of care giver significant both in what is said and the manner in which it is delivered (Sullivan, 1987).

Depression has been investigated by several researchers at workplace (Pearlin, 1975; Greenglass and Burke, 1988; Leiter, Clark and Durup, 1994; Driscoll, Worthington and Hurrell, 1995; Taris, Bok and Calje, 1998; Schonfeld, 2000). Recently, Gillen (2004) examined depression in young adult caregivers. It was hypothesized that levels of depression in 18 to 40 years old, which provided care to older adult family members, would be similar to depression levels of middle age adult caregivers. Study also examined the relationship between depression, gender, employment, physical health and relationships. Findings of the study showed that adult caregivers do suffer from depression at rates comparable to middle age caregivers which revealed that young adult also provide care to older adults who were emotionally taxed at a greater rate. A hierarchical multiple regression analysis showed caregiver gender, income and length of time providing care were significant predictors, however, the most important predictors of depression were caregiver's health and employment impact. Brashares and Catanzaro (1994) studied the role of generalized expectancies of negative mood regulation in coping among caregivers to Alzheimer's disease (AD) patients. They found that stronger expectancies for
negative mood regulations were associated with less severe depressive symptoms and also with stress levels and coping responses controlled. Marmar, Weiss, Metzler, Delucchi, et al. (1999) studied emergency service personnel. Their findings indicated that these rescue workers with more catastrophic exposure and prone to dissociate at the time of the critical incidents, were at risk for chronic symptomatic distress.

Several studies have reported elevated rates of depression among physicians compared to other professionals (Sullivan, 1987). Gallery, Whitley, Anzinger and Revicki (1992) found that physicians reported high levels of depression at work. Similarly, Thommasen, Connelly, Lavanchy, Berkowitz and Grzybowski, (2001) conducted a study on physicians and revealed that 31 percent of physicians suffered from mild to severe depression, whereas 13 percent of physicians reported taking antidepressants in the past five years. Rout (1999) studied 130 male and 75 female doctors. The investigator found that male doctors showed significant depression score than the normal and no gender specific difference among doctors were found. Peter (1994) found that medical practitioner’s working condition were associated with depression. Researchers examined depression among hospital staff including residents, medical specialists, general practitioner doctor and found that these post graduate medical students, interns and those in house jobs have been found to be up to twice as likely as their senior doctors to be depressed (Hsu and Marshall, 1987; Wilhelm, Diamond and Williams, 1997).

Studies have found that general practitioners suffered from depression (Caplan, 1994; Chambers and Campbell, 1996). A British survey on a group of senior health service staff including hospital consultants, general practitioners, and senior health service managers showed that general practitioners scoring as borderline or likely to be depressed than managers and they were more likely than hospital consultants to exhibit suicidal thinking (Caplan, 1994). Chambers and Campbell (1996) measured anxiety and depression levels and its associations with type of practice, fund holding, gender and personal characteristics in 620 general practitioners (GPs) and also identified association with personal and practice characteristics. They found no gender differences in rates of anxiety and depression. Depression was associated with having little free time from practice working, amount of on-call, being single handed and working in a non training practice, whereas
anxiety was associated with living alone, amount of on-call duties undertaken, and being a wave fund holders.

In Taiwan, Chen, Chou, Chen, Su, Wang, Feng, Chen, Lai, Chao, Chao, Yang, Tsai, Tsai, Lin, Lee and Wu (2006) conducted a study on 833 police officers and found that the estimated rate of depression among officers was 21.6 percent. Family problems and job stress related to achievement, peer pressure about performance and heavy workloads were predictive factors for depression. Further, it was found that police officers who were depressed had a poorer quality of life. Earlier, Shah (1980) studied the impact of stress on 80 officers representing, cooperative banks, marketing and consumer society, industrial society and cooperative departments and found that these officers reported symptoms of depression.

Driscoll, Worthington and Hurrell (1995) examined the psychological effects of physical assault at work place and the effects of more traditional psychological job stressors that are high demands, low control and low social support among 5,000 public service employees. They found that assaulted subjects reported depression, anxiety and low job satisfaction in comparison to non-assaulted co-workers. Further, the evidence for moderating effect of work-related social support on the relationship between assault and depression was noted. Taris, Bok and Calje (1998) studied the relationship between job characteristics and depression among 593 young Dutch workers. The results showed that depressive workers were less likely to experience a job transition than non-depressive workers. They found that if depressive workers did experience a job transition, work outcomes were less positive than for non-depressive workers. It was concluded that the relation between job characteristics and depression can be construed as a reciprocal relation. Joiner and Schmidt (1998) studied 1005 Air force Cadets and found that excessive reassurance seeking as an important depression related variable that deserves serious attention as a potential vulnerable factor.

Recently, a study conducted on Danish work force, Rugulies, Bultmann, Aust and Burr (2006) analyzed the impacts of psychosocial work characteristics and the incidents of severe depressive symptoms among men and reported that job insecurity predicted severe depressive symptoms among men. It was
suggested that work environment influence the risk for developing the severe depressive symptoms. Siebert (2004) conducted a study on social workers and revealed that 19 percent of the subjects scored above the threshold on depression scale. Among these social workers, 16 percent had seriously considered suicide at some time in their lives, 20 percent of the social workers were found to be currently taking some medication for depression and 60 percent self evaluated as depressed either currently or at some time in their past. Juradoa, Gurpeguib, Morenoa, Fernandeza, Lunac and Galveza (2005) examined the association of personality and other individual and work conditions with depression symptoms among 498 teachers (male and female). They found that depressive symptoms were associated with gender, age, low job satisfaction, high stress, and wish to change job. Carr (1994) found that school principals experienced high anxiety and depression due to educated administration being a technical activity. Similarly, Seidman and Zager (1991) studied 150 teachers and found that teachers experienced depression at work and their depression was found to be related to teacher burnout factor.

Studies have been conducted on the incidence of depression in Psychologists. Depression has been highlighted as one of the most prevalent symptoms of professional distress among psychologists (Pope and Tabachnick, 1994; Mahoney, 1997). In a study on counseling psychologists, it was found that 62 percent identified themselves as depressed. Some of the male and female psychologists experienced some forms of depression (Gilroy, Carroll and Murra 2002). Sherman and Thelen (1998) reported distress and impairment among practicing psychologists. They found that various life events and work related factors were associated with distress and impairment. A positive relationship was found between distress and impairment for both life events and work factors.

Several studies have found that women experience higher incidence of depression than do men at workplace (Pearlin, 1975; Weissman and Klerman, 1977; Ibrahim, 1980; Kessler, McGonagle, Swartz, Blazer and Nelson, 1993; Nolen-Hoeksema, 1990; 1995; Surmann, 1999). Researchers have suggested that the differences in prevalence rates of depression between men and women may be found in the different ways men and women seek assistance when feeling depressed (Skarsater, Dencker, Haggstrom and Fridlund, 2003). Work overload is proposed to
contribute to a sense of burnout and general distress, including depression symptoms in women (Gove and Tudor, 1973; Hobfoll, 1991; McIntosh, Keywell, Reifman and Ellsworth, 1994). Recently, Wieclaw, Agerbo, Mortensen, Burr, Tüchsen and Bonde (2006) found that work related threats were associated with increase in risk of depression in women. Frank, Erika and Arden (1999) found that depression was more common among US women physicians. Those women physicians who reported working too much, had career dissatisfaction, less control at work, and high job stress strategies reporting high rates of depression and tended to show higher (although non-significant) rates of suicide attempts. Gawronski and Privette (1997) investigated empathy and reactive depression in 53 women who worked or planned to work as nurses, counselors or social workers. They found a significant and positive correlation between empathy and reactive depression among these 53 women. Earlier, Greenglass and Burke (1988) studied depression and role conflict among 229 female and 327 male teachers and found that female teachers suffered more from depression and role conflict than male teachers. D'Souza (1992) reported that there was an increasing number of dedicated senior teachers particularly single women, who had become severely depressed by the recently instituted changes in education. Schonfeld (2000) updated a longitudinal study (I.S. Schonfeld, 1992) of the effects of working conditions on newly appointed women teachers. The findings indicated that work environment measures were more highly correlated with future depressive symptoms, self-esteem, job satisfaction and motivation to teach them with pre-employment counterparts of the outcome. It was found that serious problems with depressive symptoms and job satisfaction among teachers exposed to the most adverse work environments.

In a study on military members, Bray, Sanchez, Ornstein, Lentine, Vincus, Baird, Walker, Wheeless, Guess, Kroutli and Iannacchione (1998) found that 19 percent of army personnel had the highest rate of depression. More women in the military scored higher on depression than did men. It was further revealed that nearly 4 percent of military personnel, male-female had considered suicide as means of coping with stress and depression. Several investigators have found higher rates of depression in women physicians and other women professionals than in other women in general. Significant risk factor for depression was role conflict and harassment.
(Hsu and Marshall, 1987; Hendrie, Clair, Brittain and Fadul, 1990). A few studies on women physicians and other women professionals have found that such women have higher rates of depression than do their male counterparts, which was similar to general population (Welner, Martin, Wochnik, Davis, Fishman and Clayton, 1979; Clayton, Marten, Davis and Wochnik, 1980; Hurwitz, Beiser, Nichol, Patrick and Kozak, 1987). Recently, in a study conducted on male and female dentists, Mathias, Koerber, Fadavi and Punwani (2005) reported that the rate of depression in the overall sample was 9 percent. Sex was found to be associated with depression. Further, it was revealed that 15 percent of depressed dentist were receiving treatment. It was concluded that female dentist were more depressed than their male counterparts. Similar were findings reported by (Dahlin, Joneborg and Runeson, 2005). Peele and Tollerud (2005) exposed the relationship between occupational injury and depression at work among 121 individuals with work related injuries. It was found that overall injured workers were not more likely to be depressed than a comparison group of uninjured workers. However, injured women had significantly higher depression scores than non injured women. No such differences were found for men.

3.3.1. Depression Among Nurses

Depression is among the most debilitating health problem worldwide (Murray and Lopez, 1996). Depression is expected to be the second most common disease by 2020 and to account for 15 percent of the disease burden, in the world (Murray and Lopez, 1996). Depression is associated with a loss of interest in activities, fatigue, a sense of worthlessness and diminished ability to concentrate (American Psychiatric Association, 2000). Depression has significant prevalence in the workplace and significant interaction on vocational functioning (Goldberg and Steury, 2001). The symptoms of depression are unique to sadness. depression occurs when feelings of extreme sadness or despair last for at least two weeks and also if they interfere with the activities if daily living, including work. Depression adversely impacts the workplace and the burden of depression in society is immense (Hirschfeld, Keller, Panico, Arons, Barlow, Davidoff, Endicott, Froom, Goldstein,
Nursing is a profession where depression is apparent and documented (Faulkner and Mackay, 2000). Nursing is an occupation taking care of human health. Nurses are targeted for depression due to numerous reasons as high stress existing in hospitals, critical condition of patients in pain, arousing nurse's sympathy and higher number of female nurses in hospitals compared to male nurses. Researchers have examined the prevalence of depression among nurses and found that rates of depression in nurses were higher than in general population (Packard and Motowidlo, 1987; Landsbergis, 1988; Scalzi, 1990; Trinkoff, Eaton and Anthony, 1991; Skinner and Scott, 1993; Gallaghere, 2003: Chan and Huak, 2004; Suzanne, 2005). Kimura (2003) reported that negative work environment that toxic management fosters, causes despair, anger, and depression among nurses which in turn lead to poor work performance, high absenteeism and increased turnover. In a study on female registered nurses, Skinner and Scott (1993) found that nurses experienced depression in their workplace. Similarly, Baba, Galperin and Lituchy (1999) reported that nurses felt work-related depression. Mokgethi (2004) conducted a study on nurses and found that some of the nurses experienced guilt, anxiety, religious conflict and depression as a result of the nature of their work. Recently, Tang, Chen, Chen, Chang and Lin (2005) assessed job stress, social support and levels of depression in nurses and factors associated with level of depression among 250 nurses from 3 medical centers. The measures used were Beck Depression Inventory, Job Stress Survey Scale, Social Support Scale and Personal Information. The results revealed that the percentage of nurses with severe depression, moderate depression and mild depression were 48 percent, 76 percent, and 22 percent, respectively. These nurses also reported higher job stress. It was concluded that senior nurses who experienced greater job stress and with religious attitude, suffered more from higher levels of depression. Barney (2002) studied nurses and found that environmental conditions of nurses resulted in feelings of anger, despair and depression among them.

Farahmand and Nasiri (2004) investigated depression among 395 staff nurses and 64 nurse educators working in nursing and midwifery school, with at least
6 months of work experience. Results indicated that no significant difference emerged between level of depression among nurse educators and staff nurses in hospital. Depression was found to be more among single one’s (e.g. unmarried, separated), female staff on rotating morning and evening shifts. Significant association found between depression level and alternatives as working in shifts, job satisfaction and the type of work. Jasic, Heranda, Zahirovic, Pasic and Selmanovic (2004) conducted a study on nurses and found that nurses experienced depression after encountering the conflicting situation at work. Earlier, Packard and Motowidlo (1987) found that increased stress encounters, diminished both sense of job satisfaction and job performance and increased episodes of depression among nurses. Scalzi (1990) studied 75 top level nurse educators and found that these executives experienced relatively high levels of depression, moderate role ambiguity and perceived high role conflict.

De Jonge, Janssen and Van Breukelen, (1996) in their study on nurses found that depression among nurses was associated with job strain. Similar findings were reported by McLeod (1999) that nursing is a stressful occupation, and norms for depression, anxiety and stress in Hospital Trust nurses was usually be much higher than in general population. Later, Carter (2002) also observed similar findings. The investigator reported that the rates of depression in nurses were higher than in general population. Recently, Suzanne (2005) reported that routine demands of providing care for patients in the end life situations often prevent nurses from working through grief associated with death of patient and result in depression among them. Ozgencil, Unal, Okyavuz, Alanglu and Tulunag (2004) assessed depression and burnout syndrome in mixed, surgical and internal medicine intensive care unit (ICU) nurses and Non-ICU nurses working in university hospital and state hospital. It was revealed that depression scores in the university hospital nurses were higher than that in the state hospital nurses. The depression scores of mixed ICU nurses in university hospital were higher than that of the Non-ICU nurses. Although a significant difference was not found among the nurses working in different ICUs in terms of depression, mixed ICU nurses had considerable depression when considering all ICU nurses together. Earlier, Gentry, Foster and Forehling (1972) examined the psychological responses of 34 registered nurses working in ICU and
Non-ICU settings. It was found that nurses working in ICU reported more hostility, anxiety and depression and were found to be more aggressive and resentful than Non-ICU nurses.

Recently, in Iran, Habibollah Kavari, Movlalai and Bizavi (2006) conducted a cross-sectional study on 130 nurses working in a hospital to investigate the levels of depression prevalence among them using the Beck Depression Inventory and its relation with other variables by means of interview. The findings revealed that while 73 percent of the subjects reported mild depression, however, moderate and severe depression was reported by 21.5 and 5.4 percent subjects respectively. Statistical association was also found between depression and marital status, education, overtime hours at work and parents death in childhood (before 11th year of age). Further it was concluded that 26.9 percent of nurses had notable depression. Similarly, McCleave (1993) reported that depression was prevalent among nurses due to adverse personal and professional factors. Morano (1993) found that married nurses experienced less occupational depression when compared to single one’s, unmarried due to social support from family. Douglas and Bevis (2004) in their study on nurses found that nurses who did not have sufficient clinical information or training, causes lack in self confidence and felt depression at their workplace. It was suggested that with increasing level of education and clinical information feelings of depression will decrease among nurses. In a comparative study, Pelosi, Caironi, Vecchione, Trudu, Malacrida and Tomamichel (1999) found that nurses operating in general medicine units had a major tendency to experience depression in their work environment. Wamsley (1995) studied 250 registered nurses and found that 67.2 percent of these nurses were suffering from mild to moderate level of depression.

In West Virginia and Ohio, Jeanne (2002) investigated patterns of work and work schedule and the presence of depressive symptoms among 473 nurses’ aides working in nursing homes. It was found that 89 percent of nurses worked 2 to 4 weekends every month. About 1/3 worked 2 or more double shifts every month. Working 6-7 days per week was associated with increase in depressive symptoms and working 1-5 double shifts per month increased this likelihood to twice. Long term nursing home employment of greater than ten years was also associated with depressive symptoms. In another study on critical care nurses,
Ruggiero (2003) revealed that night shift nurses experienced significantly more depression than day shift nurses. Findings of the study suggested that depression and poor sleep quality are more prevalent in night shift nurses than day shift nurses. Contrary to this, Skipper, Jung and Coffey (1990) found that shift work was not found to be significantly related to either nurses' physical health nor to mental depression. Recently, Ruggiero (2005) studied nurses and found that nurses experienced depression. Findings also indicated that more weekends off per month and less depression and emotional stress among nurses contributed significantly to job satisfaction in nurses. It was concluded that intervention should be designed to reduce depression and emotional strain among nurses and help them to improve job satisfaction.

Focusing specifically on mental health problems, Borrill, Wall and West (1996) found that 28 percent of nurses in hospitals were suffering from minor health problems, generally identified as anxiety and depression. Similar findings were reported by Thomas (1997), who concluded that mental health problems such as depression among nurses were significantly correlated with increasing workload, understaffing, job insecurity and perpetual organizational change. Surmann (1999) investigated the extent to which negative mood regulation expectancies predict coping responses and levels of depressive symptoms among 70 females. Findings suggested that depressive symptoms among nurses might be more likely to be present as a function of cognition than of coping behaviour. More recently, Nouf, Nael and Aber (2004) studied nurses to examine the prevalence of anxiety and depression in Kuwait, and also compared the prevalence of anxiety and depression among nurses in different specialties. It was found that 7-10 percent of nurses were significantly affected from anxiety and depression. Hospital type which indicated specialization was also found to be associated with depression. The trend towards an association between depression and psychiatry nursing were also found. Greenglass and Burke (2000) found that greater workload contributed to depression, anxiety and cynicism among nurses. Replacement of nurses was also found to contribute to depression and insecurity among nurses. Degree of negative affectivity experienced by nurses results in feelings of depression among them (Wunderlich, Sloan and Davis, 1996). In a cross-sectional study on nurses, Smith, Choe, Jeon, Choe, An and Jeong (2005) found
that nurses suffering from periodic depression reported more musculoskeletal symptoms (MSS) risk than non-depressed nurses.

More recently, Shiao, Tseng, Yang, Cheng and Guo (2004) conducted a study on nurses working in psychiatric hospital and general hospital. Nurses were divided in two groups that is effort-reward imbalance and high demand-low control group. It was found that nurses in both the hospitals who were in the effort-reward imbalance group had depressive syndrome. Further, it was revealed that regardless of hospital type depressive syndrome was found more among younger age nurses both in the effort-reward imbalance and high demand low-control group. Molassiotis and Haberman (1996) conducted a study on nurses and reported that there was a prevalence of depression among nurses. Tselebis, Moulou and Ilias (2001) studied depression and burnout among nurses. The findings indicate that nurses felt depression and burnout which were found to be correlated with each other. Chung and Corbett (1998) suggested that nursing staff can suffer from burnout which has some depressive features and can affect their performance at work. Recently in Ontario, Laschinger and Leiter (2006) conducted a study on junior hospital nurses and found that 66 percent of nurses were experiencing symptoms of burnout and depression. Dolan, Van-Ameringen, Corbin and Arsenault (1992) reported that behaviours related to stress, burnout and depression were notable among nurses. In longitudinal study, McKnight and Glass (1995) revealed that nurses suffered from depression and burnout and the variance shared by burnout and depression was attributable to their co-development.

Trinkoff, Eaton and Anthony (1991) found that nurses were not more likely to suffer from depression as compared to matched non-nurses controls. Similarly, Chan and Huak (2004) examined the impact of their work environment on nurses and doctors and found that nurses and doctors felt depression due to their working conditions. When compared to the doctors nurses reported lesser depression. In England, Rout (1999) conducted a study on nurses and found that nurses reported lower scores on anxiety and depression. In another study conducted in Korea on nurses, Lee, Eo, Park and Lee (2002) examined the levels of depression experienced by hospital nurses (n=198) and identified personal and environmental factors that discriminate nurses depression experience. It was revealed that Korean nurses
experienced low levels of depression. Among these nurses only 29 percent reported depression. Further, role ambiguity, working in the territory hospital, work satisfaction in autonomy and professional status in interaction among nurses were found to be the significant discriminating factors for nurse's depression experience.

3.4. Social Support At Workplace

Work support refers to positive social relationship involving from expression of ideas, friendship, encouragement, as well as the emotional and instrumental help persons give to each other in the work environment (Moos, 1986). Social support is a product of interpersonal relationships within the workplace that facilitates individual adaptation. Individuals who have supportive workplace relationships may be able to rely on others to help them deal more effectively with stressful situations (Guglielmi and Tatrow, 1998). Supportive interactions and the presence of supportive relationship in peoples' lives have been shown to play a major role in physical health, emotional well-being, and work performance (Sarason, Sarason and Pierce, 1990).

Researchers have reported that organizational support was positively related to a variety of work related outcomes including organizational commitment, effort reward expectancies, evaluative and objective measure of in-role job performance, help given to workers and influencing tactics designed by employees to make supervisors to be aware of their dedication and accomplishments (Eisenberger, Fasolo and Davis-LaMastro, 1990; Witt, 1991; Wills, 1991; Shore and Tetrick, 1991; Shore and Wayne, 1993; Wayne, Shore and Liden, 1997). Social support is one of the most widely studied resistance resource in the area of stress and stress outcomes research. There is considerable evidence that work related support from one's supervisor and one's colleagues is important for coping as well as reducing job stress and its negative consequences including burnout (Constable and Russell, 1986; Buunk, 1990; Boyle, Grap, Younger and Thornby 1991; Lim, 1996).

The social support received at work has been extensively studied among different professions in relation to stress emotional vital signs and burnout (Brown and O’Brien, 1998; Alexander and Hegarty, 2000; Bansal, Monnier, Hoball and Stone, 2000; Fletcher, 2001; Pandey and Tripathi, 2002). Young (2004) studied
Psycho educational teachers and found that teacher perception of staff development opportunities and administrative support were significantly related to occupational stress levels. Recently, Wong and Cheuk (2005) studied kindergarten principals. It was revealed that principals found their work to be moderately stressful, only emotional support was shown to be effective in buffering the impact of job related stress, and there were only weak adverse effects related to the receipt of support. Person (2003) studied community college workers and found that social support was a continuous significant covariate in all the ANOVA tests. Given the influence social support had to ameliorating stress, a measure of social support could play a vital role in an organization’s continual quest to understand the contributions of job stress.

Luszczynska and Cieslak (2005) investigated the effect of social support among 152 male managers. It was found that social support from coworker or family buffered the effects of work stress in managers with low hardiness and high emotional reactivity. Support from supervisor protects from work stress. Banerjee and Gupta (1996) studied the moderating effect of social support in the relationship between occupational stresses and strain among male and female police officers, advocates, doctors and clerks. The subjects were 25 male and 25 randomly selected females from each profession. The results indicated that social support can moderate the relationship between occupational stresses and strain. Linzer, Gerrity, Douglas, Mc Murray, Eric, Williams and Konrad (2002) studied physician stress and found that lack of support by colleagues for balancing work and home isolation contributed to stress. In the Caribbean, Baba, Galperin and Lituchy (1999) found that role conflict, work overload and lack of social support were predictors of stress. The quality of the work environment, workload and physical and mental demands of the job can be compensated for by staff-friendly work environments and supportive colleagues. Haddad (1998) studied 90 counselors and found a significant negative relationship between family support, colleagues support and personal accomplishment with stress. Noor (1995) studied 109 employed women and found that locus of control and work support combined interactively to moderate the impact of job challenges on happiness by decreasing the level of job stress.

Social support predicted burnout (Baba, Galperin and Lituchy, 1999). Empirical studies confirmed the negative relationship between burnout and social
support. Social support from colleagues, supervisor, and family was associated with less burnout (Etzion, 1984; Leiter and Meechan, 1986). Similarly, Pines, Aronson and Kafry (1981) reported that support from friends was negatively correlated to burnout. Jenkins and Elliot (2004) found that the higher levels of support from co-workers were related to lower levels of burnout. Further higher level of stressors associated with higher levels of depersonalization for staff reported high levels of social support, but not for those reported low levels of support (a reverse buffering effect). It was concluded that staff support might be useful in alleviating feelings of burnout. The reverse buffering effect suggested that they should be structured in a way that minimize negative communication and encourages staff to reduce their concerns in constructive ways. In Japan, Touringy, Baba and Lituchy (2005) examined job burnout and strategies for coping with burnout among employees and found that supervisory support moderated the relationship between emotional exhaustion and depersonalization. Job burnout was inversely related to effective work support and supervisor support influenced the depersonalization component of burnout.

Earlier, Russell, Altamaier and Van Velzen (1987) examined the impact of social support on burnout and an interaction effect between support and job stressors. They found a main effect of supervisors support on emotional exhaustion, depersonalization and personal accomplishment and an interaction effect between job stressors and supervisors support. No direct or moderating influence was observed for social support from coworkers, spouses, friends or relatives. In contrast, Greenglass, Fiksenbaum and Burke (1995) did obtain a significant moderating influence of family and friend support on teacher burnout. In a subsequent more extended investigation of teacher burnout, Greenglass, Fiksenbaum and Burke (1996) revealed a significant moderator effect of support from colleagues and supervisors on both the emotional exhaustion and depersonalization subscales of the Maslach Burnout Inventory. Similar, findings were reported by other investigators (Greenglass, Burke and Konarski, 1998). They found that support from co-workers led to reduced emotional exhaustion among female teachers and that both supervisor and co-worker support led to higher personal accomplishment in their male colleagues. Antoniou, Polychroni and Walters (2000) studied teachers stress and professional burnout and
found that those who had social support available were less likely to experience burnout. Earlier, Jackson, Schwab and Schuler (1986) reported that feelings of personal accomplishment found to be highest for teachers in supportive environment. Recently, Leung and Lee (2006) found that support from supervisors had a direct influence on teacher’s intentions to quit and an indirect effect through emotional exhaustion. Talmor, Reiter and Feigin (2005) reported that teachers experienced higher levels of burnout and their levels of burnout was negatively correlated with less social support experienced by teachers.

Earlier, Asante (1999) investigated 78 volunteers who were recruited for AIDS service organization in US to determine whether religiosity and perceived social support explain a significant amount of the variance in volunteer burnout. It was found that social support and religiosity explain a significant proportion of the variance in burnout. Kootte (2001) conducted a survey on hospice social workers, in an effort to learn whether support on the job workload and death anxiety were associated with burnout. The findings revealed that death anxiety was positively associated with depersonalization and emotional exhaustion but negatively associated with personal accomplishment, whereas supervisor and peer support were not found to be associated with burnout. Adams (1999) studied radiation therapists and found that higher levels of burnout were associated with higher levels of stress and lower levels of social support. Peeters and Le Blanc (2001) studied oncology care providers and found that social support from family, moderated the relationship between qualitative demands and depersonalization and social support from colleagues, moderated the relationship between emotional demands and depersonalization. Garland (2004) examined the relationship between the upper level administration support and burnout among 83 staff working in a state prison. It was revealed that administrative support and intimate contact were the best predictors of emotional exhaustion component of burnout; weaker perceptions of support from deputy warden of special services were linked to higher exhaustion scores. Thompson, Kirk and Brown (2005) tested the path analysis model in which work stress affects police women’s functioning in their family environment through a component of burnout that is emotional exhaustion. It was found that work support from supervisors, but not colleagues was predicted to reduce role stress and emotional exhaustion.
Recently, Lingard and Francis (2006) conducted a study on construction professionals and managers to examine the effects of perceived organizational support (POS) and support from supervisor and co-worker in the relationship between work family conflict (WFC) and burnout. The results revealed that POS had main effect on burnout and also moderates the relationship between WFC and burnout. The effects of social support did not differ according to its sources. Effects for supervisor and co-worker support were similar. However, different effects were found for types of support. Emotional support had a main effect on burnout not a moderating effect on the WFC and burnout relationship. Practical support had moderating effects, but not a main effect on burnout. It was suggested that for supportive work environments intervention should be designed to alleviate or prevent employee burnout. Baruch-Feldman, Brondolo, Ben-Dayan and Schwartz (2002) examined social support from different sources, including family, co-workers, and supervisors in 211 traffic agents (92 men and 119 women). Findings revealed that support was negatively related to burnout. Family support was more closely related to burnout, whereas immediate supervisor support was not found to be significantly related to burnout. Sand (1997) conducted a study on boundary spanners to investigate burnout sources and their relationship to sales people within and outside their own corporate infrastructure. The majority of support sources studied was found to be negatively associated with levels of sales person burnout. Support within the organization as well as support outside the organization was associated with lower levels of burnout. Inside organization types of support were perceived by the sales people as being more useful in reducing stress and negative events. Support within the organization as well as outside the organization was associated with lower levels of burnout. Inside organization types of support were perceived by sales people as being more useful in reducing stress and negative events. Less social support from family has been shown to increase the job strain and mental health problems (LaRacco, House and French, 1980; Levi, 1981; Parkes, 1990).

A number of studies have attempted to explore the relationship between social support and depression (Billing and Moos, 1981; Parkes, 1982; Schaefer and Moos, 1996). Several studies of depression hypothesized that depressed persons have fewer social resources and depression is associated with low rate of
social reinforcement. There is consistent evidence of a negative relationship between many facets of social support and current depression (e.g. Bell, Le Roy and Stephenson, 1982). Seeking social support for instrumental resources such as assistance or information correlate negatively with depression scores (MaloneBeach and Zarit, 1995). The precise nature of relationship of social support with depressions, however may depend to some extent on the nature of the support measure used (Anuradha, 2001). Employee with unsupportive bosses suffered two times more from depression than did their colleagues with supportive bosses (Good Boss, Good Health, 1990). Snapp (1992) studied the relationship among occupational stress, social support and depression within 100 black and 100 white professional, managerial women. He reported that career support from friends, co-workers and family did not directly lessen the depression among subjects which arises due to occupational stress. In a longitudinal study on Alzheimer’s caregiver, Schulz and Williamson (1991) found that there was a positive relationship between depression and negative social support. Study further revealed that there were three significant predictors of change in depression, lower depression scores at times were related to increase in depression overtime, men were more likely than women to experience increases, and a decline in social support resulted in increased depression. It was concluded that female caregivers reported stable rate of depressive symptomatology throughout the study, whereas male caregivers exhibited significant increase in depression overtime. A study in France followed 12,000 working individuals over and extended time period found that high levels of psychological demands, low degree of control over work decisions and lack of workplace social support predicted the subsequent development of depressive symptoms (Niedhammer, Goldberg, Leclerc, et al., 1998). Another study also reported that lack of social support at work predicted depressive symptoms in the working white collar workers population (Karasek, 1990). Similar findings have been reported in other health care workers (Parkes, 1982; Revicki and May, 1989).

Recently, Niedhammer, Chastang, David, Barouhiel and Barrandon (2006) reported that social support at work played a role to reduce depressive symptom for women. MaloneBeach and Zarit (1995) examined the relationship of family social support and social conflicts to stressors and depression among care
giving women. Study found that instrumental support was significantly related to depression. Whereas, no significant relationship was found between informational and emotional support with depression. Further social conflict found to be related to depression.

The association of social support and anger has also been investigated by researchers (Wattanakit, Williams, Schreiner, Hirsch and Folsom, 2005; Brooks, Thomas and Droppleman, 1996). Social network allows the individual to control the anger feelings by discussing the source of anger and frustration with others, which enable them to modify annoying obstacles, thus potentially lowering the anger and hostility. Supportive network may also offer individuals necessary information, practical advice, and morale boosting, all of which can be employed to modify individual's frustration by lessening their angry feelings (Greenglass, 1996). Social support moderated the impact of low job control or anger directed at co-workers, low levels of social support was associated with increased work related anger (Fitzgerald, Haythornthwaite, Suchday and Ewart, 2003). Use of social support resources lead to non-threatening expression of anger and hostility (Stoney and Engebretson, 1994). More recently, Marjanovic, Greenglass and Coffey (2006) reported that organizational support predicted lower levels of anger among nurses working with patients suffering from severe acute respiratory syndrome (SARS). Bansal, Monnier, Hoball and Stone (2000) studied the influence of angry and depressive mood on the receipt of perceived workplace social support and perceived workplace resources among 121 male and female postal workers. The study revealed that women perceived loosing support and resources when experiencing depression and anger respectively, and those emotions had only limited negative consequences for man. Greenglass (1991) found that higher the reported family support perceived by managers, the less they used anger-in to manage their expression of anger. Earlier, Greenglass (1987) examined 133 female managers and reported that for Type-A, sex discrimination was positively associated with job anger, when social support from one’s boss was low and with increasing support Type-A’s were less likely to report anger. Further it was concluded that social support can function as a buffer of anger among managerial women. Later in another study, Greenglass, Burke and Konarski
(1997) found that collegial support buffered emotional exhaustion, as indicator of high stress. There was a feeling of sadness, frustration, and anger when support was not experienced.

3.4.1. Social Support Among Nurses

A great deal of research attention has been devoted to examine the role of social support among nurses (Brandt and Weinert, 1981; Norbeck, 1985; Boumans, 1990; Ogus, 1990; Morano, 1993; Abu-Al-Rub, 2003; Albar and Garcia-Ramirez, 2005). Tyler and Cushway (1995) studied the effect of coping strategies, social support and job satisfaction on psychological distress from occupational stressors among nurses (aged 19-60 years). They observed that the avoidance coping and lack of social support from colleagues and boss caused higher occupational stress among nurses. Tyson, Pongruengphant and Aggarwal (2002) studied nurses to find how nurses coped with stress and whether any strategy effectively reduced organizational stress. The findings indicated that avoidance and social support were significantly correlated with stress, but neither of these strategies appeared to reduce nurse's level of organizational stress. Coffey and Coleman (2001) reported that support from managers and co-workers were found to be an important factor in ameliorating the experience of stress among community mental health nurses. In another study, Bartram, Joiner and Stanton (2004) reported that social support derived from the supervisors and colleagues lower the job stress among nurses. Abu-Al-Rub (2003) studied 303 hospital nurses of different countries who were accessible over the internet to investigate the effect of related stress on job performance and the effect of social support from co-workers and supervisors on the stress-performance relationship. The data revealed that increased level of perceived social support from co-workers and supervisors enhanced the level of reported job performance and decreased the level of reported stress.

In a study conducted on nurses, Fletcher (2001) decried the lack of support among nurses from their immediate supervisors. Investigators have pointed out that perhaps the most deeply distressing consequence of the unsupportive environment was the general feeling that nurses could not provide the kind of patient
care they wanted to give because of insufficient time and resources (Brooks, Thomas and Droppleman, 1996; Smith, Droppleman and Thomas, 1996).

The social support received at work in particular is important in increasing job satisfaction and decreasing burnout. Earlier, Constable and Russell (1986) reported that lack of supervisor support was found to be a major determinant of burnout among nurses. Similarly, Cooper (1986) studied staff nurses and found that there was a link between lower levels of supervisory support and a higher risk of burnout. The greater feelings of burnout among community nurses seem to be the consequences of the fact that they feel themselves less supported by their head nurse. It was suggested that to decrease the feelings of burnout among employees, it is more effective to pay attention to supervising support, peer relationship and individual training programmes instead of changing the work-context (Boumans, 1990; Boyle, Grap, Younger and Thornby, 1991; McGrath, Reid and Boore, 2003).

Sixteen studies were conducted in diverse settings, including geriatrics nurses across Canada and U.S.A. Nursing burnout and two sources of work support from supervisors and colleagues were mainly examined by investigators. All these studies found a significant negative relationship between work support and nursing burnout (Paredes, 1982; Mickschl, 1984; Duxbury, Armstrong, Drew and Henly, 1984; Cronin-Stubbs and Rooks, 1985; Haley, 1986; Constable and Russell, 1986; Dick, 1986; Hare, Pratt and Andrews, 1988; Mallett, 1988; Ogus, 1990; Michaud, 1991; Eastburg, 1991; Oehler, Davidson, Starr and Lee, 1991; Fong, 1993; Plante, 1993; Saulnier, 1993). Several other studies reported that lack of support at work enhances nursing staff vulnerability to burnout (Constable, 1983; Duxbury, Armstrong, Drew and Henly, 1984). The more a nurse perceive support from colleagues, the less he or she burnout (Duquette, Kerouac, Sandhu and Beaudet, 1994).

In a hospital study of four countries, Aiken, Clarke and Sloane (2002) found that under staffing as well as lowered levels of organizational and managerial support were related to dissatisfaction, burnout and even intentions to leave their job among nursing and caring personnel. Duquette, Kerouac, Sandhu, Ducharme and Saulnier (1995) studied geriatric nurses and found that work support that is from supervisor and peer cohesion were equal determinants of burnout. Investigators
suggested that if geriatric nurses perceive social support in their work settings, either from their superiors or their peers, they would be less likely to burnout. Earlier, Constable and Russell (1986) studied nurses and reported that lack of social support was a major determinant of burnout. Further, it was revealed that there was significant connection between supervisory support and emotional exhaustion, indicating that support from a supervisor can decrease feelings of emotional exhaustion a significant component of burnout among staff. Jansen, Kerkstra, Abu-Saad and Vander Zee (1996) found that peer and supervisor support reduced feeling of burnout in sample of 402 Dutch community nurses. Similarly, Janssen, De Jonge and Bakker (1999) conducted a study on 156 Dutch nurses and found that there was statistically significant negative correlation between social support from colleagues and burnout. Ogus (1990) examined the relationship between stress and social support in dealing with burnout among nurses. It was found that nurses who had high sources of support and high level of satisfaction with that support reported less burnout than nurses with few supports and less satisfaction with those supports, regardless of level of work stress. No buffering effects were found for family support. It was concluded that nurses with high work stress and family support did not experience lower burnout than nurses with high work stress and low family support. However, another study reported that was negatively related to and predictive of burnout among hospital nurses social support (Cronin-Stubbs and Rooks, 1985).

In a study conducted on nurses, Koniarek and Dudek (1996) found that burnout level correlates highly with organizational and global stress. The role of social support in determining the level of particular burnout component varied according to type and scope of support. No reliable correlation was found between emotional exhaustion and social support of any type (e.g. general support of relationships and work support). The level of depersonalization was related only to general support, whereas a personal accomplishment factor was related to both types of support. The study did not reveal a buffering effect of both types of social support on the relationship between stress and components of burnout. Fielding and Weaver (1994) found significant correlations between supervisory support and emotional exhaustion, depersonalization subscales of Maslach Burnout Inventory (MBI) in a sample of 67 hospital nurses. In another study utilizing the same sample, Janssen,
Schaufeli and Houkes (1999) reported that workplace social support from one's supervisor was moderately correlated with emotional exhaustion and weakly and significantly correlated with depersonalization. Lee and Henderson (1996) measured burnout and social support in 78 American nurse administrators and found that nurse administrators who reported fewer chances to meet with peers experienced reduced personal accomplishment and higher emotional exhaustion compared with those who had higher organizational support.

In Canada, Marjánovic, Greenglass and Coffey (2006) conducted a study on nurses working with patients suffering from severe acute respiratory syndrome (SARS) and found that higher level of support predicted low levels of emotional exhaustion. Earlier, Leiter (1988) found that emotional exhaustion in staff nurses was associated with decreased levels of supervisory support. In a study among nursing staff, Gillespie and Melby (2003) found that perceived lack of support and poor communication from those in management contributed to the emotional exhaustion of nursing staff. Albar and García-Ramírez (2005) studied the role of three sources of social support (family as kins, co-workers as insiders, and supervisor as outsiders) on the emotional exhaustion in a sample of 210 nurses at a general hospital in Seville a City in the south of Spain. The result indicated the main effect of 3 sources of social support and the buffering effect in the case of outsiders and kin. It suggests the need to perform studies with wider samples, which allow the analysis of professional's psychosocial characteristics and types of support, as well as demands in nursing job tasks.

Eastburg, Williamson, Gorsuch and Ridley (1994) conducted a study on nurses and found that there was a negative correlation between work related support and burnout among nurses. Both support from supervisors and peer cohesion contributed to decreased emotional exhaustion in nursing sample. Boumans (1990) studied nurses and found that nurses who received a lot of social support at work were more satisfied, whereas nurses who preferred autonomy in their work and sought distraction when they were faced with problems were less satisfied with their jobs. Boyle, Grap, Younger and Thornby (1991) studied critical care nurses and found that hardiness, social support and ways of coping were related to burnout. Social support had a negative relationship to burnout. Both work-related and non-
work related sources of social support were significantly and negatively related to burnout. Kirmeyer and Dougherty (1988) reported that higher levels of supervisor support buffered the negative effects of the job demand and decreased feelings of emotional exhaustion among hospital nursing staff. Sisney (1993) conducted a study on 58 nurses to examine the relationship between social support and depression. It was revealed that social support was significantly related to depression in this sample. Lack of social support and differentiated treatment on gender were found to be a source of anger among nurses (Brooks, Thomas and Droppleman, 1996).

3.5. Burnout At Workplace

As a result of economic and social developments, the nature of work has changed dramatically during the past decades (Le Blanc, Bakker, Peeters, Van Heesch and Schaufeli, 2001). People working with other people, such as health care workers, and teachers, experience the highest work pace stress (Houtman and Kompier, 1995). Moreover, in many occupations, a shift from physical to mental and/or emotional demands is observed. Working daily with other people in a "consumer friendly" way. As is the case in the human services is associated with increasing emotional demands (Hochschild. 1983). Whereas working with complex technologies, leads to an increase in workers mental demands (e.g. Schaufeli, Keijers and Reis-Miranda, 1995). As a result of these changes, the level of occupational stress, including burnout, has risen alarmingly in the past decades.

Burnout usually is conceptualized as a work-related syndrome stemming from the individuals perception of significant gap between expectations of successful professional performance and an observed, far less satisfying reality (Friedman, 2000).

Researchers have identified a number of personal and environmental factors associated with burnout. Personal factors include unrealistic expectations, low self-esteem, self-critical attitude, over commitment, lack of social support etc. (Lavendero, 1981; Maslach, 1982). Environmental factors particularly related to work environment, encompass workload, role conflict, lack of authority to carry out responsibility, and strenuous working condition (including lack of control over working condition etc.) (Lavendero, 1981; Jackson, 1983). Burnout continues to
create problem for employees, employers and customers in the people helping profession. Some employees remain unaffected from its effect, while others are paralyzed, become ineffective (Teska, 2005). Burnout is a job-related hazard for human service employees. Historically burnout was perceived as a problem with an individual than a problem with organizational sources of burnout. Consequently, burnout is described as an individual syndrome, consisting of emotional exhaustion, depersonalization, and reduced sense of personal accomplishment mediated within the work context (Antoinette, 2005).

Since its discovery burnout has been recognized as a serious threat particularly for human service professionals (Schaufeli, Maslach and Marek, 1993). A series of studies have been conducted to investigate burnout syndrome and its association with personal, professional and work related factors in various human service occupations (Wolpin, Burke and Greenglass, 1991; Gilbar, 1998; Sand and Miyazki, 2000; Lozinskaia, 2002; Patton and Goddard, 2003; Chase, 2005). Recently, Esteva, Larraz and Jimenez (2006) conducted a study on doctors and found that 53 percent of doctors had high emotional exhaustion, 47 percent had high depersonalization and 33 percent of the doctors had low personal accomplishment. Job stress was found to be related to higher levels of emotional exhaustion and depersonalization. Deckard, Meterko and Field (1994) assessed burnout among 235 physicians and also examined its relationship with personal, professional and organizational/work life factors. The results showed that 58 percent of the subjects reported high emotional exhaustion, 35 percent reported high levels of depersonalization in their patient interaction. It was concluded that subject’s workload/scheduling considerations and their level of input into their practice were the strongest predictors of emotional exhaustion. Varga, Urdaniz and Canti (1996) examined the existence of the burnout syndrome and its relationship with socio-demographic and working conditions in general hospital doctors and found a medium degree of burnout related to working conditions but found no relationship between burnout and socio-demographic factors.

In a longitudinal study, Savicki and Cooley (1994) tested the hypotheses that burnout remains the same across time and that environmental conditions are related to change in burnout. 64 Child Protective Service (CPS)
workers were followed over an average 18 months period. They found that all scales of Maslach Burnout Inventory showed significantly increased burnout. Further, they found that work environment factors and work hassles were significantly related to change in burnout with initial levels of burnout controlled. It was concluded that the relation of environmental factors to changes in burnout was consistent with previous non-quantitative descriptions of CPS job. Coady, Kent and Davis (1990) found that hospital social worker who spent much of their time providing services for chronically ill patients had a correspondingly high prevalence of burnout. Similarly, Acker (1999) found that percentage of time providing direct services had a significant relationship with emotional exhaustion among social workers in outpatient mental health settings. In a study conducted on primary care practitioners, Goehring, Gallacchi, Künzi and Bovier (2005) reported that 19 percent of the primary care practitioners had high scores on emotional exhaustion, 22 percent had high scores on depersonalization and 16 percent had high scores on either emotional exhaustion or depersonalization (moderate degree of burnout) and 4 percent had high scores on all the three scales of MBI.

Leiter and Harvie (1996) found that mental health problems such as burnout and stress frequently manifest as physical conditions and as a result, health care workers tend to report higher rates of physical disability than other occupational groups. In India, Chandra, Jairam and Jacob (2004) conducted a study on palliative caregivers (23 male and 29 female) in HIV/AIDS to estimate the prevalence of stress and its correlates among them. It was found that 92 percent had average to high scores on at least one domain of Maslach Burnout Inventory. High scores on the factors emotional exhaustion, depersonalization and lack of personal accomplishment were seen in 10 percent, 17 percent and 58 percent of the sample respectively. AIDS Stress Scale Score and severity of stress in dealing with persons living with AIDS and having considered leaving HIV related work were predictors of high emotional exhaustion scores. AIDS Care Scale score and severity of stress with death of person with AIDS were predictors of high depersonalization scores. Females' gender was a predictor of high lack of personal accomplishment score. Nurses scored maximum on all burnout measures. However, nurses continue to be at risk for high levels of stress when compared to other professionals. Some of the doctors showed less on all
burnout components as compare to nurses and social workers. Recently, Antoinette (2005) measured the relationship between burnout and contextual work factors (workload, control, reward, community values, fairness) among rural community mental health counselors and found that 70 percent of the counselors experienced high or moderate degree of emotional exhaustion. Approximately half of the counselors acknowledged high or moderate degree of depersonalization. More than 80 percent of the sample indicates low or moderate degrees of personal accomplishment. Overall, the contextual work factors model significantly predicted emotional exhaustion, depersonalization and personal accomplishment. Forte (2002) studied 150 psychologists to examine how their job characteristics affect their emotional reactions to their work, specifically the development of work-related stress and subsequent outcomes such as burnout and job satisfaction of these professionals. The results indicated that psychologists were more likely to be satisfied with their jobs when they were not overloaded with work. In addition, psychologists were more likely to experience emotional exhaustion and depersonalization when they were overloaded by work. Psychologists' depersonalization was also predicted by their exposure to extreme physical conditions at work and opportunities to deal with other people in order to complete their work. The findings also indicated that psychologists derived a sense of personal accomplishment when their work provided opportunity for them to interact with their peers and their sense of accomplishment and identity was strongly associated with their ability to complete the entire piece of work.

Akroyd, Caison and Adams (2002) studied radiographers and examined their levels of burnout and compared their burnout to national norms and other health professionals. The results revealed that majority of radiographers exhibited high level of emotional exhaustion while only 56 percent exhibited lower levels of depersonalization. When compared to nurses and radiation therapists, radiographers reported similar levels of burnout as nurses and lower levels of emotional exhaustion and depersonalization than radiation therapists. Similarly, Sciacchitano, Goldstein and DiPiacido (2001) studied hospital-employed radiographers and examined occupational stress and levels of burnout and found that higher levels of occupational stress were associated with higher levels of burnout among them. LaCoursiere (2001) examined burnout among substance user treatment
staff and found that in staff, burnout is associated with increased work pressure, unclear work policies, and decreased coping abilities. Togia (2005) measured the levels of burnout among librarians. It was revealed that respondents experience low levels of emotional exhaustion and depersonalization and moderate levels of personal accomplishment. Direct contact with library users seemed to enhance feelings of personal accomplishment. In addition, employees with short term contracts reported higher levels of emotional exhaustion in comparison to their colleagues holding lifetime positions. Haley (2003) studied academic oncologists and examined level of burnout among them. The study revealed that a significant number of oncologists included in this research were experiencing a high level of depersonalization and diminished personal accomplishment.

In a study on principal’s and rehabilitation supervisors on leadership style and burnout, Lubofsky (2002) found that a relationship existed between both leadership style and quality of counselor burnout for high school counselors, but not for rehabilitation counselors specifically transactional leadership was associated with less burnout among high school counselors. Demographic factors were also found to affect burnout in both the groups. Recently, Johnson (2006) investigated the degree of burnout among teachers. It was revealed that female teachers reported slightly higher levels of emotional exhaustion when compared to males. It was concluded that although there were slight differences among the teachers on subscale of burnout but no significant characteristics of teachers found that would predict burnout among them. In contrast, Demirel, Güler, Toktamis, Özdemir and Sezç (2005) revealed no statistically significant differences between the scores on emotional exhaustion and depersonalization among male and female Turkey school teachers. Further it was concluded that teachers in Turkey suffered from less burnout than of the teachers in many developed countries. In North American studies on teacher’s burnout indicated that female teachers reported higher scores on emotional exhaustion (Russell, Altamaier and Van Velzen, 1987; Greenglass, Burke and Ondrack, 1990). Slightly different results were found among Dutch teachers, where feelings of emotional exhaustion were significantly higher in men (Van Ginkel, 1987). Similar to North America, males scored higher on depersonalization than females. Mabry (2005) examined the factors that play a significant role in teacher’s burnout among 356
elementary, middle, and high school teachers. It was revealed that 60.4 percent had no evidence of burnout, whereas 39.5 percent showed evidence of burnout. There was no statistically significant difference between teacher burnout and gender, school location, ethnicity, teacher age, school level, years of teaching experience, class size, or highest degree obtained by the teachers. Abel and Sewell (1999) examined the sources of stress and symptoms of burnout in rural and urban secondary school teachers from 11 school system in Georgia and North Carolina. The investigators observed that urban school teachers experienced significantly more stress from poor working conditions. Time pressures predicted burnout for rural school teachers, whereas pupil misbehavior and poor working conditions predicted burnout for urban school teachers. Van Horn, Schaufeli and Enzmann (1999) examined burnout in terms of the exchange of investments and outcomes at interpersonal (teacher-student) and organizational (teacher-school) levels. Findings revealed that teachers report higher level of emotional exhaustion when they invest more than they get back from their school. As expected, at interpersonal level, low outcome are related to higher burnout levels, whereas at the organizational level, low investments are related to higher burnout levels.

Recently, Bauer, Stamm, Virnich, Wissing, Müller, Wirsching and Schaarschmidt (2006) conducted a study on 408 teachers and found that 32.5 percent of the sample suffered from burnout. Burnout found to be significantly higher among women divorced teachers and teachers working part time. In a comparative study, Kenyeri (2002) investigated level of burnout among low and high socio-economic status (SES) school teachers using three subscales of Maslach Burnout Inventory (MBI-Form Ed.). The results suggested that there was no significant difference between burnout on the subscales of emotional exhaustion and depersonalization and the SES area in which teacher works. However, a significant difference was found on the personal accomplishment subscale when three categories of each subscale were examined. The findings indicated that more teachers from the high income school fell in the high category of personal accomplishment and less of the teachers from the high income school district fell in low category as compared to the low income school district.
In India, Misra (1992) investigated the effect of biographical variable of teachers and teacher's stress perception in teaching on their burnout feelings. The study consisted by 200 primary school teachers of Bhubaneshwar. The findings of the study indicated that teachers with low stress feelings experience more emotional exhaustion and personal accomplishment in comparison to high stress teachers. The investigator further reported that teachers experience in teaching profession is responsible for experiencing feelings of emotional exhaustion. Teachers with less experience felt more emotional exhaustion, which is reverse in the case of teachers having more experience. Pandey and Tripathi (2001) examined the level of perceived occupational stress and burnout in 56 engineering college teachers and also the relative importance of various job stressors in predicting burnout. They found that teachers reported moderate level of occupational stress as well as burnout. Further, they found that various job stressors correlate positively with emotional exhaustion and depersonalization components of burnout and negatively with personal accomplishment component. Role ambiguity, unreasonable group pressure and political pressure were found to be the two best predictors of burnout. Strenuous working conditions and intrinsic impoverishment emerged as the third best predictor of emotional exhaustion and personal accomplishment respectively. They concluded that teaching is a stressful occupation and teachers are at high risk for developing burnout syndrome. They also found that stresses related to ambiguity in role and group pressure to be significant factors in burnout. Misra and Sahu (1993) studied the relationship between role stress and burnout among 240 college teachers. The findings, in contrast to those in Western teachers indicated, that teachers experienced low levels of stress and burnout. Further, the investigators observed that role stress was significantly related to emotional exhaustion and depersonalization, but not to personal accomplishment. Conditions related to emotional exhaustion included, were workload, role conflict, role ambiguity and non-contingent punishment.

Recently, Borritz, Rugulies, Björner, Villadsen, Mikkelsen and Kristensen (2006) conducted a 5 year prospective investigation on employees from different organizations in human service sectors including social security offices, hospitals, home care services, psychiatric prisons, and institutions for disabled. Data were collected at baseline and at two follow ups. It was found that response rate at
baseline was 80 percent. Midwives and home care workers had the highest levels on both work and client related burnout. Prison officers had the highest level on client related burnout, whereas supervisors and office assistants had low levels of burnout. Wright and Bonnett (1997) empirically tested the relationship among three dimensions of burnout and work performance among human service personnel and found that a negative relationship was established between one dimension of burnout that is emotional exhaustion and subsequent work performance. Further, the results failed to establish relationship among work performance and depersonalization and diminished personal accomplishment and provide further support for emotional exhaustion as a key component of burnout experience. Jamal (2004) studied the relationship between non-standard work schedule (shift work and weekend work) and job burnout, stress and psychosomatic health problems among full-time employed Canadians in a large metropolitan city on the East cost. Results indicated that employees, who involved with weekend work, reported significantly higher emotional exhaustion, job stress and psychosomatic health problem. Similarly employees not involved with weekend work on non-standard work shift reported significantly higher overall burnout, emotional exhaustion, job stress and health problems than employees on a fixed day shifts (9 am to 5 pm). Further, it was found that employees involved with weekend work and non-fixed day shifts reported significantly higher emotional exhaustion and health problems than other employees.

Innstrand, Espnes and Mykletun (2004) in a longitudinal quasi experimental study on staff working with people without intellectual disabilities in two municipalities in Norway examined the mean differences of stress, burnout and job satisfaction after different intervention approaches were applied to staff in one of the municipalities. Other staff in the municipality served as a control group. Results indicated a significant reduction in stress and exhaustion and a strong significant rise in job satisfaction after intervention. In Australia, Patton and Goddard (2003) studied 152 employment service case managers who were providing intensive assistance to the unemployed. The General Health Questionnaire and the Maslach Burnout Inventory was administered to them and it was found that out of the 152 case managers, 48 percent endorsed responses indicating psychological distress and on the core dimension of burnout that is emotional exhaustion, case managers scored
significantly higher than that of published for the human service workers. The results indicated significant levels of burnout and distress in employment service case managers in the Austrian job service.

Burnout studies have consistently shown that compared to men, women are significantly higher on personal accomplishment and depersonalization dimensions of burnout (Maslach and Jackson, 1985; Greenglass and Burke, 1988). Welsch (1998) investigated gender differences among 205 males and 252 female veterinarians using Profession Stress Inventory (HPSI-l), the Burnout Measures (BOS), and the Coping Styles Questionnaire (CSQ) a measure of Job Satisfaction. Females reported significantly higher levels of job satisfaction but were significantly more stressed and more burned out than their male colleagues. Further, results showed that males and females had a tendency to cope differently with job stress. Male used significantly more rational and detached coping while females used significantly more emotional coping. However, more frequent usage of emotional coping strengthened the positive association between job stress and burnout in males but not in females. Similarly, Tang and Lau (1996) studied 374 Chinese human service professionals and examined the associations between burnout and gender role stress. The results showed that gender role stress was the best predictor for emotional exhaustion and depersonalization, while professional type was the best predictor for personal accomplishment. Masculine gender role stress was related to emotional exhaustion and depersonalization for male and female professionals, whereas feminine gender role stress was related to similar burnout dimensions for male professionals only. Gender role stress and burnout association were found only in gender-typed professions of police officers and nurses, but not in a non-gender typed professions of secondary school teacher. Among these three groups, nurses experiences a higher level of gender-role stress and lack of personal accomplishment than police officers and teachers.

3.5.1. Burnout Among Nurses

Human service professionals who provide therapeutic support to service recipients frequently encounter burnout (Cashin, 2000). Burnout was first identified, documented and defined as early as 1974, and has subsequently linked to the nursing profession (Farabaugh, 1984). Burnout has been shown empirically to be
related to certain characteristics of the job environment. For example, the stressful conditions prevalent in the health care setting, including exposure to death and dying, interpersonal conflict and noise pollution have been found to increase burnout among nurses (Topf and Dillon, 1988; Schmitz, Neuman and Oppermann, 2000). Nursing staff who stay for a long time in hospitals can suffer from burnout which has some depressive features and this can affect their performance at work (Chung and Corbett, 1998).

Burnout has many implications for nursing care as well as for caregiver’s health, and costs related to health services (Cherniss, 1980; Freudenberger, 1980; Edelwich and Brodsky, 1980, Maslach, 1982: Jones, 1982; Pines and Aronson, 1988). Duquette, Kerouac, Sandhu and Beaudet (1994) conducted an analytical review of empirical knowledge of factors related to nursing burnout. This systematic analysis of the literature showed that the main correlates of burnout are: work stressors, work support, coping strategies and hardiness. Consistent with findings in other professions, nurses are susceptible to burnout (Topf and Dillon, 1988; Edwards, Burnard, Coyle, Fothergill and Hannigan, 2000). In a survey on nurses working in neonatal intensive care, Oehler, Davidson, Starf and Lee (1991) found that nurses scored in a moderate range of burnout for emotional exhaustion and de-personalization and in a high range of burnout for sense of personal accomplishment. It was concluded that greater work-related stress is often linked to increased emotional exhaustion in hospital nurses, and new and inexperienced nurses experience burnout most rapidly. Nurses working in community settings also experience burnout (Chung and Corbett, 1998).

Storlie (1979) suggested burnout as a highly personal happening inside the nurses—the literal collapse of the human spirit. It would be more useful and certainly more compassionate to ask what goes on in a profession that transforms caring into self-protection and trust into suspicion (Storlie. 1979). Fear of death, discomfort with dying patients and exposure to dying patients has also been reported as potential contributors to burnout (Pruyser, 1984). Two empirical studies have investigated the relationship between exposure to dying patients and burnout. One study confirmed that amount of exposure to dying patients was associated with higher
levels of burnout (Dames, 1983), while the other found no relationship between exposure of dying and burnout (Yasko, 1983).

Astrom, Nilsson, Norberg, Sandman and Winbald (1991) studied geriatric care nurses and found that burnout was correlated with reduced empathy and less positive attitudes. The results indicated that the experience of burnout is a crucial mediating factor in the care of demented patients. Burnout leads to excessive negative experience in staff and as it is connected to decreased empathy and less positive attitudes towards demented patients, it seems logical that it leads to negative experience in the patients as well. In another study, Duquette, Kerouac, Sandhu, Ducharme and Saulnier (1995) identified determinants of burnout in geriatric nurses considering work stressors, work support, coping strategies and hardiness. A hierarchical multiple regression analysis indicated that 49 percent of the variance was explained by the study variables. Further, it was reported that the hardiness and work stressors were the most important predictors of burnout followed by coping strategies and support 22 percent, 21 percent, 2 percent, and 2 percent respectively. Results suggested that geriatric nurses with hardy personality traits, when faced with work stress-generating events are able to reduce stress and avoid burning out. It was concluded that work stressors such as frequent conflicts with physicians as well as heavy workloads, inducing burnout among nurses. Moreover, nurse-patient relationship will be damaged by burnout, as response to chronic stress (Maslach, 1982).

Recently, Quattrin, Zanini, Nascig, Anunziata, Calligaris and Brusaferro (2006) estimated the level of burnout among nurses working in oncology wards to identify the risk factors of burnout and the strategies to prevent and deal with stress. It was revealed that 35 percent of the nurses had high levels of depersonalization and 11 percent had high personal accomplishment. Significant high levels of emotional exhaustion were found in nurses older than 40 years with seniority or working more than 15 years. Earlier, Happell, Pinkahana and Martin (2003) studied forensic nurse (n=51) to measure their level of stress and burnout. The Maslach Burnout Inventory (MBI) and Nursing Stress Scale (NSS) were the instruments used. The findings indicated that relatively few forensic nurses suffered
from "high" level of burnout with considerably more forensic nurses recording "low" levels of burnout. 17 percent revealed a high score. Meltzer and Huckabay (2004) examined the relationship between critical care nurse's perception of futile care and its effects on nursing burnout. The Maslach Burnout Inventory (MBI) and the Moral Distress Scale (MSI) were used. Results indicated a significant positive correlation between the score on the emotional exhaustion subscale of the MBI and the score on the frequency subscale of the MSI. Moral distress accounted for 10 percent of the variance in emotional exhaustion. It was concluded that in critical care nurses the frequency of moral distress situations that are perceived as futile or non-beneficial to their patients has a significant relationship to the experience of emotional exhaustion, a main component of burnout phenomenon.

Recently, in a study conducted on 89 community mental health nurses, Edwards, Burnard, Hannigan, Cooper, Adams, Juggessur, Fothergill and Coyle (2006) found that 36 percent of nurses experienced higher levels of emotional exhaustion, 12 percent depersonalization and 10 percent experienced higher levels of personal accomplishment. Younger nurses who had not experienced six or more sessions of clinical supervision reported higher scores on depersonalization. Prosser, Johnson, Kuipers, et al. (1996) compared stress and coping strategies among hospital and community based mental health nurses. Large numbers in both group appeared to be experiencing emotional exhaustion due to the demands of their work. However, the hospital nurses were more detached from their patients and enjoyed a diminished sense of personal accomplishment compared with their colleagues in the community service, who appeared to be significantly more satisfied with their work. Carson, Maal, Roche, Fagin, De Villiers, O'Malley, Brown, Leary and Holloway (1999) examined burnout in mental health nurses and found that nurses reported high level of burnout and scored high on all the three components of burnout, whereas some of the other nurses reported low levels of burnout. Jansen, Kerkstra, Abu-Saad and Vander Zee (1996) studied the effects of job characteristics and individual characteristics on job satisfaction and burnout in community nursing and found that nurses were moderately satisfied with their jobs and effects of burnout were average. Further, community nurses were less satisfied and experienced burnout to a greater extent than community nurse auxiliaries. Both job characteristics and individual
characteristics were found to be related to job satisfaction and burnout. However, job satisfaction was affected to a greater extent by job characteristics, whereas burnout was more often a result of individual characteristics.

Pinikahana and Happell (2004) conducted a study on psychiatric nurses working in rural mental health services to measure the level of burnout and stress. It was revealed that a few number of nurses suffered from high levels of overall burnout. Majority of nurses reported low levels of emotional exhaustion and depersonalization scores. Only 11 percent of nurses reported high scores on personal accomplishment, whereas 87 percent of nurses reported low scores. Foster (2003) examined the relationship between age of the psychiatric nurses (n=81) and coping strategies for three aspects of burnout that is emotional exhaustion (EE), depersonalization (DP) and personal accomplishment (PA). It was found that 56 percent of participants felt low degree of perceived burnout in the EE aspect, a moderate degree among 36 percent of participants, and a high degree among 2 percent of participants. In a PA aspect a high degree of perceived burnout existed among 51 percent of participants, a moderate 41 percent, and low degree among 9.2 percent of participants. A positive relationship existed between age and EE, and between age and DP, indicating that EE and DP increased with age. No relationship was found between age and PA. Jaracz, Górna and Konieczna (2005) conducted a study on nurses and evaluated professional burnout and correlation between burnout and subjectively perceived stress in nurses from general medical neurological and psychiatric hospital wards. The results revealed that nurse had average and high levels of burnout in terms of emotional exhaustion 71 percent, depersonalization 34.8 percent, and personal accomplishment 77 percent. A significant correlation was found between subjectivity of perceived stress and the level of burnout. It was suggested that level of stress influences the professional burnout among nurses. There was diversity in the level of burnout depending on the specialization at work.

Gillespie and Melby (2003) examined the levels of burnout among nurses working in acute medicine, accident and emergency department of the hospital. It was revealed that nurses who were working in acute medicine, experienced higher levels of emotional exhaustion than their counterparts working in accident and emergency departments. Nurses experienced high levels of personal
accomplishment and the overall level of depersonalization was found to be low among nurses. It was concluded that burnout and stress have far reaching effects both for nurses in their clinical practice and personal lives. Schlachta-Fairchild (2000) studied telenursing that is a technology used to deliver nursing care and conduct nursing practice. The investigator opined that the telenursing is a new role in response to rapid adoption of tele medicine technology in health care and role stress of new nursing roles, such as telenursing can cause burnout.

Bakker, Le Blanc and Schaufeli (2005) conducted a study on intensive care unit (ICU) nurses to explore whether burnout is contagious that is burnout is communicated from one nurse to another. Burnout prevalence among nurses was subjected to analysis of variance (ANOVA). The ANOVA results indicated that the between unit variance on a measure of perceived burnout complaints among colleagues were statistically significant and substantially larger than within-unit variance. In addition, the results of multilevel analyses showed that burnout complaints among colleagues in intensive care units made a statistically significant and unique contribution to explaining variance in individual nurse’s and whole units’ experiences of burnout. Moreover, emotional exhaustion and depersonalization, perceived burnout complaints among colleagues was the most important predictor of burnout at the individual and unit levels. It was concluded that burnout is contagious and it may crossover from one nurse to another nurse. Chen and McMurray (2001) found that ICU nurse reported low to moderate levels of burnout in all the subscales of MBI that is emotional exhaustion, depersonalization and reduced personal accomplishment.

Pines, Aronson and Kafry (1981) found that decreased empathy was related to burnout among nursing staff. They also found that staff with high empathy were sensitive to demands as they tend to be deeply involved with their patients and therefore at risk to develop burnout. Recently, Cam (2000) studied the level of burnout in nursing academicians in Turkey and also investigated the variables which are strongly correlated with the burnout among nursing education settings in Turkey. The results indicated that the most significant predictor of emotional exhaustion was work-setting satisfaction, of depersonalization was job pressure and of personal accomplishment was job satisfaction in nursing education settings in Turkey. Earlier,
Hare, Pratt and Andrews (1988) studied 312 professional and para-professional nurses and examined interpersonal, intrapersonal and situational factors which are the significant predictors of 6 dimensions of burnout in nurses. They found that work relationships and tension-releasing and instrumental problem-focused coping were the most powerful predictors of burnout. Based upon this, it was concluded that nursing burnout is both organizational and a personal problem. De Jonge, Janssen and Landeweerd (1994) revealed in a study on nurses that among nurses, feelings of emotional exhaustion increased when the amount of workload increased. This relationship was reduced when nurses had more autonomy in their work. A negative relationship was found between the amount of challenge in the job and social support experienced and feelings of emotional exhaustion. In Germany, Bussing and Glaser (1999) found that well being of nurses to be influenced by the degree of stress within the profession as a whole. When the ‘system’ was over stretched or challenged, individuals become emotionally exhausted and experience feelings of burnout.

Recently in a study on nursing staff, Silvia, Gutiérrez, Rojas, Tovar, Guadalupe, Tirado, Araceli, Cotoñieto and García (2005) reported that 40 percent of nursing staff showed emotional exhaustion, 32 percent felt dehumanized and 63 percent of nurses had lost interest in their work and 50 percent reported general exhaustion. In another study, Wamsley (1995) examined burnout among 250 nurses and found that 34.8 percent of the nurses reported higher emotional exhaustion, 32.8 percent higher depersonalization and 32.5 percent low personal accomplishment. Zohar (1997) found that emotional exhaustion was an outcome of daily demands in nurses. Similar findings were earlier reported by Pagel, Witlman and Elaine (1986). Maslach and Jackson (1981) used large sample of members of professionals including nurses. For each subscale the subjects were divided into the top, middle and lower thirds to give cut off points. Findings showed that much smaller percentage of Northern Ireland nurses fell into the high burnout category in terms of frequency and intensity of emotional exhaustion. Northern Ireland nurses seem to experience this phenomenon subscale, but those who do experience this phenomenon do so with comparable intensity to other groups that has been studied. On the subscale, which measure burnout due to feelings of lack of personal accomplishment, nurses exhibit high levels of burnout.
In literature, there are many studies demonstrating the relation between private living conditions of nurses and burnout (Gaines and Jermier, 1983; Maslach and Jackson, 1985; Barnett and Marshall, 1993; Walters, 1993; Walters, Lenton, French, Eyles, Mayr and Newbold, 1996). Heim (1991) stressed that nurses who cannot cope with stressors at work and in private life may experience anxiety and burnout. Demir, Ulusoy and Ulusoy (2003) investigated the factors influencing burnout in professional and private life of nurses and found that higher education level, work experience, and higher status decrease burnout, while working at night shifts increases it. In addition, nurses who had problems in relations and were not satisfied with their work conditions had higher levels of burnout. Having difficulty with other team members in child care and in doing house chores, health problems of the nurse herself or her children, economic hardships and difficulties encountered in transportation were some other factors increasing burnout. Earlier, Beaver, Sharp and Cotsonis (1986) in their study on nurse-midwives found that age and burnout levels were inversely related. Stewart and Arklie (1994) revealed that nurses whose roles were not clearly defined and do jobs which were not in their duty had higher levels of burnout. Earlier, Lamb (1979) stressed that the risk of health professionals who work as administrators is much lower than the risk of burnout of nurses who work face to face with patients.

Recently, in a survey on 820 nurses working in 40 AIDS units, Vahey, Aiken, Sloane, Clarke and Vargas (2004) found that the nurses scored average range of emotional exhaustion, depersonalization and a sense of personal accomplishment. Further, they found that nurses working on the AIDS units with good work environment had significantly lower burnout. A study of nurse’s burnout showed that nurses with the highest burnout scores reported the greatest amount of conflict with other nurses (Hilhouse and Adler, 1997). Cheuk, Swearse, Wong and Rosen (1998) reported that a heavy workload exerted debilitating (main) effect on burnout and also hindered spurned nurse’s ability to adequately cope with recurrent patient rejection. Bilici, Mete, Soylu, Bekaroglu and Kavakcy (1998) found out that nursing academicians whose monthly incomes were lower than they expected have high emotional exhaustion levels. Similarly, Beemsterboer and Baum (1984) stated that low salaries increase burnout levels in nurses.
Recently, in a study on nurses working in 3 provincial hospitals, Zhu, Wang, Wang, Lan and Wu (2006) investigated the degree of burnout and its contributing factor among them. Findings of the study revealed that nurses had significant greater scores on job burnout. The main contributing factors for burnout were overload, sense of responsibility, role insufficient, and self-care. Richardsen, Burke and Leiter (1992) studied 212 health service professionals including nurses and nurses aids (n=134), physicians (n=30), and other occupations (n=48). It was revealed that when compared to other occupational groups nurses scored significantly higher on the emotional exhaustion component of burnout than did the physicians, but there was no differences were found on other two burnout components. However, there was a tendency for nurses to score on depersonalization as well, but this difference was not significant. None of the other comparisons were statistically significant. It was suggested that burnout was a problem for many workers at the hospitals and that burnout was associated with individual characteristics as well as specific characteristics of work settings. Recently, Piko (2006) in a study on nurses revealed that nurses reported higher emotional exhaustion, depersonalization and low personal accomplishment. Zellars, Hochwarter, Perrewe, Hoffman and Ford (2004) examined the impact of personality traits and mood states in job burnout among nurses. Results indicated that extraversion significantly predicted the exhaustion and depersonalization components differentially. Further, passive moods mediated the relations between extroversion and accomplishment, while negative moods partially mediated between neuroticism and exhaustion. Thus moods exhibited both direct and mediating effects.

3.6. Emotional Vital Signs and Burnout

A large part of most people’s life is spent in working in jobs that necessarily imply emotional content. A person’s job is the source of a variety of emotion related processes and outcomes including the intensity and frequency with which pleasant emotions (e.g. calm, joy, pride) or negative emotions (e.g. anger, depression, sadness) are experienced (Zammuner, Lotta and Galli, 2003).

Occasional feelings of frustration, anger, depression, dissatisfaction and anxiety are a normal part of living and working. But people caught in the burnout
cycle usually experience these negative emotions more often until they become chronic (Potter, 1998). Investigators in their researches observed that in the worst cases, people complain of a kind of emotional fatigue/depletion or depression. While no two people respond exactly the same way, people tend to experience frustration first that may evolve into anger. In later stages, anxiety, guilt and fear, then depression and, in extreme cases despair occurs. It does not occur overnight. It is a cumulative process beginning with small warning signals, when unheeded can progress into a profound and lasting dread of going to work. Symptoms of burnout are frustration, depression, interpersonal problems, emotional withdrawal, health problems, substance abuse, declining performance, feelings of meaninglessness, and vicious cycle rarely stops by itself (Potter, 1998).

Anger and depression are the emotional vital signs that have been investigated with burnout at work by several investigators (Stephenson, 1990; Keller, 1990; Jones, Fletcher and Ibbeetson, 1991; Ueda and Shimazu, 1995; Lee and Ashforth, 1996; Harrison, 2000; Kaufmann, 2002). The findings of these studies indicated that there was a relationship between emotional vital signs (anger and depression) and burnout. Majority of these findings reported a positive correlation between these variables.

3.6.1. Anger and Burnout

Increasing levels of anger are one of the symptoms of burnout. Burnout is becoming more and more prevalent in the workplace around the world (UN: International Labour Organization, 1993). Numbers of studies have been conducted to investigate the relationship between burnout and anger (Mytych, 1981; Stephenson, 1990; Keller, 1990; Thomas, Riegel, Gross and Andrea, 1992; Muscatello, Aragona, Carroccio, Cedro, Bruno, La Torre, Di Rosa, La Torre and Zoccali, 2003). In a study conducted on traffic enforcement agents, Brondolo, Masheb, Stores, Stockhammer, Tunick, Melhado, Karlin, Schwartz, Harburg and Contrada (1998) evaluated the psychosocial correlates of anger related traits. Cross-sectional analysis indicated that trait anger which is frequently suppressed that is anger-in was negatively associated with frequency of conflict, anger intensity, and burnout and positively associated with an increase in burnout over four month period.
Jordan (1999) reported that uncertainty at workplace regarding one's job often progress into anger and internalized anger leads to burnout. Similarly, other investigators reported that prolonged experience of negative feelings of anger as well as frustration and sense of being without support among military personnel could lead to burnout (Leiter and Durup, 1994; Morgan, Cho, Hazlett, Coric and Morgan, 2002).

Anger-in has been found to be associated with health problems by several investigators (Diamond, 1982; Spielberger, Johnson, Russell, Crane, Jacobs and Worden, 1985;Dimsdale, Pierce, Schonfeld, Brown, Zusman and Graham, 1986; Ghosh, 1992; Ghosh and Sharma, 1998). Majority of these investigators observed that anger-in was significantly correlated with psychosomatics problems. Earlier, Dembroski, MacDougall, Williams, Haney and Blumenthal (1985) found that high ratings of anger-in were significantly and positively associated with severity of coronary atherosclerosis. Likewise, holding anger in was found to be associated with greater cardiovascular reactivity (MacDougall, Dembroski, Dimsdale and Hackett, 1985; Wadhwa, 1999).

Zoccali, Campolo, Carroccio, Cedro, Muscatello, Pondolfo, Di Rosa and Meduri (1999) conducted a study on 36 subjects working in two different oncology staff to assess the correlation between anger and burnout using the following instruments: Maslach Burnout Inventory (MBI), Comery Personality Scales (CPS), and State Trait Anger Expression Inventory (STAXI). It was found that all subjects showed medium to high level of burnout related to work duration. Overall anger level (Ax/Ex) and anger-out (Ax/Out) were directly proportional to the level of burnout, while the control of anger was inversely proportional to burnout. The researchers concluded that anger as a response to frustration, seems to be a feature constantly associated with clinical expression of burnout and it is not be underestimated in both theoretical and preventive contexts. Earlier in a study on nursing staff, Firth, McKewon, McIntee and Britton (1987) reported that nurses, who were prone to direct anger outwardly, were more likely to experience depersonalization or negative feelings towards patients or others. Lee and Ashforth (1996) reported that emotional exhaustion was significantly related to the perception, that job required high levels of hiding negative emotions, such as fear and anger and this was the only factor related to emotional exhaustion. The relationship was small.
and became non-existent once the effect of dispositional and negative affectivity was partialed out. Chronic and unresolved conflict with others on the job produces negative feelings (e.g. anger, frustration, and hostility) and reduce the likelihood of support hence increases the levels of burnout (Maslach, 2005).

Keller (1990) found that behavioural changes such as inflexible thinking, negative attitudes, increased frustration, and quickness to anger were symptoms of burnout among nurses. It was evident that a significant number of nurses sharing the symptoms of burnout due to these behavioural changes. Three American studies revealed that angry nurses were experiencing low to moderate levels of burnout (Mytych, 1981; Keller, 1990; Thomas, Riegel, Gross and Andrea, 1992). Stephenson (1990) conducted a study on teachers and found that burned out teachers reported almost the same levels of anger as healthy or worn out teachers. In another study, Riddle (1999) found that there was a positive correlation between death anxiety, aggression, and burnout among enforcement officers. In India, Saini, Yadav and Mal (1997) examined feelings among 160 school teachers in relation to negative affectivity (high/low) and teaching experience (1-5years/ 6 years). They found that teachers with high negative affectivity reported more emotional exhaustion than their low negative affectivity counterparts. No significant effect of teaching experience was found on burnout feelings among teachers.

A number of studies have attempted to explore the relationship between Type-A disposition having anger as an important component of burnout (Swogger, 1986; Hallberg, Johansson and Schaufeli, 2007). Lavanco (1997) studied burnout and Type-A behaviour in two groups of 50 nurses living and working in Sicily and another group of 50 teachers, 26 working in high schools, and 24 in junior high schools. It was found that nurses who showed higher scores on irritability, scored lower on job satisfaction and burnout. For the nurses, Type-A scores were correlated positively with scores on burnout and negatively with job satisfaction. Hallsten (1993) found that Type-A behaviour patterns has been particularly linked with emotional exhaustion component of burnout (Schaufeli and Enzmann, 1998). Johnson and Stone (1987) studied social workers and found that people who demonstrate Type-A behaviour patterns experience greater feelings of personal accomplishment. In India, Pradhan and Misra (1995) investigated the gender
differences in Type-A behaviour patterns (TABP) and its relationship with burnout in 50 dual career medical professional couples. Results revealed moderate level of Type-A behaviour pattern but low levels of burnout among respondents. Further, it was found that there were no significant gender differences in experience of burnout. It was also revealed that there was a significant gender differences in relationship between TABP and burnout, this relationship was stronger for females when compared to males.

3.6.2. Depression and Burnout

Burnout is a negative psychological experience with features of depression and a loss of idealistic spirit (Johnson and Stone, 1987). In literature there are many considerations on the relationship between burnout and depression (Lloyd, Streiner and Shannon, 1994; Soderfeldt, Soderfeldt and Warg, 1995; Dreary, Blenkin, Agius, Endler, Zealley and Wood, 1996; Martearena and Celentano, 2002; Thomas, 2004; Antony and Dean, 2005; Gopal, Glasheen, Miyoshi and Prochazka, 2005). A number of studies have reported that there was a close association between burnout and depression (Schaufeli and Enzmann, 1998; Schaufeli and Buunk, 2003). Glass and McKnight (1996) studied the association between burnout and depression. The study revealed that burnout and depression were correlated to each other and tends to co-occur. Earlier, Kahill (1988) found a strong link between burnout and depression. Baba, Galperin and Lituchy (1999) reported that burnout was the sole predictor of depression. Similar findings also reported by other investigators that burnout is related to depression (Greenglass, Burke and Ondrack, 1990).

Schaufeli and Enzmann (1998) examined the relationship between burnout and depression and reported that there was a significant relationship between burnout and depression. Further, they provided three explanations for the correlations between burnout and depression level. First, burnout and depression share common symptoms such as low energy, poor work motivation and negative attitudes. Second, neuroticism may underlie depression as well as emotional exhaustion. Third, common external causes might exist. Burnout leads to depression instead of the other way around (Leiter, 1993). More recently, Toker, Shirom, Shapira, Berliner and
Melamed (2005) reported that burnout was moderately but significantly correlated with depression.

Another group of studies conducted on teachers found that burnout was positively correlated with depression, anxiety and somatization among teachers (Greenglass, Burke and Ondrack, 1990; Bakker, Schaufeli, Demerouti, Janssen, Van der Hulst and Brouwer, 2000). Schonfeld (1991) reported that components of burnout namely emotional exhaustion and reduced sense of personal accomplishment were likely to be the symptoms of depression among female teachers. In another study, Bakker, Schaufeli, Demerouti, Janssen, Van der Hulst and Brouwer (2000) examined the discriminant validity of burnout and depression among 154 Dutch teachers. It was reported from confirmatory factor analyses that burnout could be statistically discriminated from depression. Results revealed that lack of reciprocity in the relationship with students, predicted burnout. However, burnout was found to be only indirectly related to depression. These findings were consistent with the equity theory and confirmed that burnout is work related and depression is context free.

Thommasen, Connelly, Lavanchy, Berkowitz and Grzybowski (2001) conducted a study on physicians to examine the levels of burnout and depression and found that physicians suffered from moderate to high on emotional exhaustion scores. Grunfeld, Whelan, Zitzelsberger, Willan, Montesanto and Evans (2000) in their study on physicians revealed that physicians who were depressed reported high emotional exhaustion. It was concluded that their burnout might be associated with depressive disorder. In study on burned out residents, Shanafelt, Bradley, Wipf and Back (2002) found that 51 percent of these residents reported depression, while 31 percent of them reported self reported major depression. Korkeila, Töyry, Kumpulainen, Toivola, Räsänen and Kalimo (2003) investigated health matters among Finnish physicians and psychiatrists. Study revealed that psychiatrists reported burnout, depression and mental disorder more commonly than physicians. Depression had a moderate positive correlation with overall Maslach Burnout Inventory (MBI) score, and emotional exhaustion.

Bellani, Furlani, Gnecci, Pezzotta, Totti and Bellotti (1996) studied 194 health caregivers working in HIV/AIDS units to investigate the correlations between individual variables, burnout, and job satisfaction. It was found that overall
burnout and personal accomplishment component of burnout were correlated with depression. Depression was found to be the important variables in outlining the profile of highly burned out health caregivers. Dorz, Novaro, Sica and Sanavio (2004) in their study found that staff working with AIDS patients reported higher levels of depression and burnout. They also reported that depression was strongly correlated with burnout. Further they observed, that behavioural disengagement and depression predicted high level of emotional exhaustion. In a study on direct care providers, Costa (1995) revealed that care providers were suffering from depression and burnout. High correlations were found between depression and burnout measures. Depression subscales showed high correlations with conceptually similar burnout subscales. It was further reported that all but one subject reaching criteria for burnout reached criteria for depression however, significant numbers of depressed subjects were not burned out. The investigator suggested that burnout fails to demonstrate empirical discrimination with respect to depression. The investigator suggested that the results were inconsistent with burnout theory, which predicts burnout/depression relationship only in a final stage of burnout. Similar findings were reported in another study on social workers. The study revealed that there was a significant and positive relationship between burnout and depression (Takeda, Yokoyama, Miyake and Ohida, 2002).

Glass, McKnight and Valdimarsdottir (1993) assessed depression, burnout, and perceived job controllability in 162 nurses. They found that depression accounted for over 18 percent of variance associated with emotional exhaustion and index of burnout and perceived job controllability accounted for 6 percent of variance. Perception of uncontrollability was significantly related to higher levels of depression and burnout. Structural equations modeling suggested that perceived uncontrollability was associated with burnout, which in turn is related to depression affect. In a study conducted on ICU and Non-ICU nurses, Ozgencil, Unal, Okyavuz, Alanglu and Tulunag (2004) found that there was a positive correlation between depression and emotional exhaustion in both ICU and Non-ICU nurses. Similarly, Tselebis, Moulou and Illias (2001) conducted a study on nurses to investigate the relationship between sense of coherence, depression and burnout. It was found that
depression and sense of coherence was correlated with burnout. Further, it was revealed that depression was correlated only to a lesser degree with burnout.

Wamsley (1995) studied 250 registered nurses and found that 67.2 percent of these nurses were suffering from mild to moderate depression. Similarly, 34.8 percent nurses reported high emotional exhaustion, 32.8 percent high depersonalization, and 34.5 percent low personal accomplishment. Further, positive correlations were found between stress, stress-related depression, and burnout. In a longitudinal study on nurses, McKnight and Glass (1995) reported that variance shared by burnout and depression was attributable to their co-development. Iacovides, Fountoulakis, Moysidou, and Ierodiakonou (1999) conducted a study on nurses and examined the relationship between burnout and depression. Maslach Burnout Inventory (MBI), Eysneck Personality Questionnaire (EPQ), and Zung Self-Rating Depression Scale were used to assess the level of burnout, personality traits and depression respectively. Results revealed a weak but significant relationship between burnout and depression. It was concluded that depression is a pervasive disorder that affects every aspect of patients' life. On the contrary, burnout is, by definition, a syndrome restricted to the patients' professional environment. However, it seems that there may be two types of burnout syndrome, of which the one comprising the majority of nurses had little or no common features with depression. The second type consisted of individual's with predisposition to develop burnout. The latter is characterized by more severe symptomatology, phenotypic similarity to depression and presumably common etiological mechanism. Nursing staff can suffer from burnout which has some depressive features and can affect their performance at work (Chung and Corbett, 1998). In a study conducted on nurses, Molassiotis and Haberman (1996) reported that presence of depression, low personal accomplishment and dissatisfaction with pay variables found to be strong predictors of emotional exhaustion.

In a recent study in Finland, Ahola, Honkonen, Isometsa, Kalimo, Nykyri, Aromaa, and Lonqvist (2005) analyzed the overlap of job-related burnout and depressive disorders that is major depressive disorder, dysthymia, and minor depressive disorder among 3,279 employees aged 30-64 years. The findings revealed a relationship between depressive disorders and burnout. The risk for depressive
disorders, especially major depressive disorder (12 month prevalence) was found to be greater when burnout was severe. Those with current major depression episodes suffered from serious burnout more often than those who had suffered a major depression episode earlier. The authors suggested that concepts of burnout and depression complement each other and cover partly overlapping phenomena. Depressive disorders are related to burnout particularly when it is severe and a current major depressive episode is likely to be associated with the experience of burnout. In another study, Nyklicek and Pop (2005) examined a relationship between indices of personal and familial history of depression and current symptoms of burnout among 3,385 employees of different work settings. After controlling for background variables, the strongest predictor of all three burnout facets was current depressive symptomatology. Independent of the effects of background variables and current depressive symptoms, having ever experienced a depressive episode further predicted current symptoms of two burnout facets: emotional exhaustion, and cynicism. In addition, history of depression in close family members independently predicted current symptoms of emotional exhaustion. It was concluded that a predisposition for depression, as reflected by a personal and familial history of depression, may enhance the risk for burnout. Sears, Urizar and Evan (2000) in their study on extension agents reported that a significant proportion of extension agents suffered from burnout and 26 percent of them shared depressive symptoms.

Although large body of Western research supports association of psychological vital signs (anger and depression) and burnout at workplace in general and among nurses in particular, however, the researchers in India have not addressed the issue adequately. This calls for further investigation in this area of research among human service professionals in India.

3.7. Overview

From the preceding review of related studies, it is evident that there is great deal of research focused on the prevalence of stress, anger, depression, social support and burnout at workplace among human services as well as other professions. Studies reviewed in this chapter also highlighted that nursing is a highly stressful occupation and nurses are susceptible to burnout. With regard to emotion of anger,
studies indicated that anger is a fact of life for nurses due to features of their job. It is also evident from the review that nursing is a profession, where depression is apparent and documented. Review of literature also indicates that work related support from one's supervisor and one's colleagues is important for coping as well as reducing job stress and its negative consequences including burnout.

A substantiative amount of literature revealed that stress has been an inevitable part of occupational life and stress inevitably experienced in any organizational/occupational setting (Lazarus, 1995). Studies of various groups of human service professionals indicate the vulnerability of this group in stressful work situation (Reid, 1999; Gal, 2003; Price, 2003; Chandra, Jairam and Jacob, 2004; Suttinen, Kivimaki, Elovainia and Foma, 2005). Depending on which emotional aspect prevails, this problem can assume different forms in different profession e.g. managers (Michailidis and Georgiou, 2005), officers (Rishi, Upadhayay and Solanki, 2004; Wells, Colbert and Slate, 2006), teachers (Buckingham, 2004) doctors (Cohen and Patten, 2005; Sharma, 2005). However, researchers have also observed gender differences, related to stress and reported that gender also influences the levels of stress experience (Rodriguez-Calcagno and Brewer, 2005; Griffin, 2006).

It is evident from the preceding review, that researchers have pointed out nursing as a stressful occupation and assert that different levels and sources of occupational stress occur in different areas of nursing (Carson, Bartlett, Leary, Gallagher and Senapati-Sharma, 1993; Owen, 1995; Kipping, 2000; Jenkins and Elliot, 2004; Jaracz, Górna and Konieczna, 2005). Major sources of stress within nursing profession were found to be death and dying, conflict with doctors, lack of support, inadequate preparation and conflict among nurses, workload and uncertainty over treatment (Gray-Toft and Anderson, 1981b). Some recent studies have concentrated on work related stress among nurses (Glazer, 2005; Kennedy, 2005; Xianyu and Lambert, 2006). However, recent studies in the Indian setup indicated that occupational stress vary according to individual and job characteristics and work family conflict among nurses (Parikh, Taukari and Bhattacharya, 2004). Another study indicated that private hospital nurses experienced significantly higher level of stress than the government hospital nurses (Tankha, 2006). Other groups of investigators have reported an association between personality traits and stress among
Thompson, Packard and Manning, 1986; Glazer, Stetz and Izsso, 2004). Though a large number of Western studies focus on occupational stress among nurses, however, a very little research attention has been paid to examine job stress among nurses in Indian setup (Virk, Chhabra and Kumar, 2001). Majority of these studies used measures occupational stressors across occupational groups (Kasl, 1987; 1996; Karasek and Theorell, 1990) which generally neglect more specific stressors, their frequency of occurrence and severity, considered to be crucial stressors, which could explain difference in burnout levels between various occupational groups (Spielberger, Reheiser, Reheiser and Vagg, 2000; Vander Doef and Maes, 2002).

Anger has received much attention from researchers at workplace (Laabs, 1995; O'Leary-Kelly, Griffin and Glew, 1996; Neuman and Baron, 1998; Fitness, 2000; Anderson, 2002; Kiewitz, 2002; Preidt, 2004). Researchers have reported that emotion of anger hostility and aggression is pervasive in different occupational sectors. Studies on police officers, teachers, emergency workers (Rawat, 1996; Mearns, 1998; Monnier, Cameron, Hobfoll and Gribble, 2002; Nieto, 2003; Sharma, 2003), revealed that all these professionals experience this emotion of anger at work. Few empirical studies have indicated that gender roles are significant on both anger related behavior and anger proneness (Cox, Stabb and Hulges, 2000). Other studies found no gender differences in anger (Fine and Olson, 1997). A number of Western studies on healthcare professionals (Kassinove and Tafrate, 2003; Satar, Cenkseven, Karcioglu, Topal and Sebe, 2005; Li Calzi, Farinelli, Ercolani, Alianti, Manigrasso and Taroni, 2006) reported that anger was a common feeling among them.

Review of literature indicated that nurses frequently experienced the emotions of anger at workplace (Sundin-Huard and Fahy, 1999; Thomas, 2003; Baskin, 2004; Smit, 2005) due to numerous reasons such as patient’s conditions (Drury, 2001), stresses in their work (Griffin, 2003), unfair treatment at work (Thomas, 2004), negative work environment (Vander Zyl, 2002), aggression and violence from patient’s (Oweis and Diabat, 2002: Hislop and Melby, 2003). Studies have also reported that nurses tend to express as well as suppress their angry feelings towards self, and others at workplace (Blaha, 1995; La Duke, 2000; Vander Zyl, 2002; Smit, 2005; Nathaniel, 2006). Other study reported that nurses also try to cope
with these feelings so that their angry feelings were not projected onto patients (Chase, 2005). Researchers have also reported that hostility and aggression were also prominent among nurses (Muff, 1992; Pillemer and Hudson, 1993; Smith, Droppleman and Thomas, 1996; Kelly, 1998). Investigators have also suggested ways to cope with angry feelings (Droppleman, 1997; Sherlock, 1999; Helge, 2001). Though, a large body of research supports anger at workplace (Helmer, 1978; Anderson, 2002; Michels, Probst, Godenick and Palesch, 2003). However, only few studies have addressed the issue of experience and expression of this negative emotion (Sloan, 2004). Moreover, most of the studies have been conducted in the Western setup; very few studies reported this feeling at workplace as well as among nurses in Indian setup.

As can be evident from the preceding review, depression is identified as a widespread problem at many work settings (Vernarec, 2000). A significant number of studies have been conducted on different professionals including, physicians, caregivers, dentists, social workers, psychologists, police officers, and teachers as well as among other professionals (Sullivan, 1987; Brashares and Catanzaro, 1994; Gilroy, Carroll and Murra, 2002; Gillen, 2004; Rugulies, Bultmann, Aust and Burr, 2006). Findings of these investigations reported that depression is prevalent among all these professionals. Work environment influence the risk for developing severe depressive symptoms. Recent study on teachers reported that depression symptoms were associated with gender, age, low job satisfaction and high stress (Juradoa, Gurpeguib, Morenoa, Fernandeza, Lunac and Galveza, 2005). Researches have pointed out that women experience higher incidence of depression than do men (Surmann, 1999; Wieclaw, Agerbo, Mortensen, Burr, Tüchsen and Bonde, 2006). Researchers have also observed that women employees scored higher on depression than their male counterparts (Bray, Sanchez, Ornstein, Lentine, Vincus, Baird, Walker, Wheless, Guess, Kroutli and Iannacchione, 1998). However, an Indian study on doctors found no gender specific differences on feelings of depression experience (Rout, 1999).

Several investigators have reported the evidence of depression in nursing profession (Lee, Eo, Park and Lee, 2002; Gallaghere, 2003; Tang, Chen, Chen, Chang and Lin, 2005). Study reported that routine demands of providing care
for patient’s result in depression among nurses (Suzanne, 2005). Another study reported that personal and professional factors associated with feelings of depression among nurses (McCleave, 1993). Increasing workload, job insecurity, understaffing, and organizational change, were reported to be significantly correlated with depression feelings among nurses (Thomas, 1997; Greenglass and Burke, 2000; Jeanne, 2002; Ozgencil, Unal, Okyavuz, Alanglu and Tulunag, 2004). Although, several investigations reported depression at workplace (Guck, 2005) however, much less attention has been paid to the role of depression among nurses in India as well as in West. The available evidence of this latter negative emotion among nurses appears to be related to the nature of their job. Investigators pointed out that depression is pervasive experience among health care professionals, which involves all aspect of one’s life ranging from the more intimate to the social and working aspect (Li Calzi, Farinelli, Ercolani, Alianti, Manigrasso and Taroni, 2006).

Review indicates that social support received at work has been extensively investigated among different professions in combination to other variables (Etzion, 1984; Moos, 1986; Sisney, 1993; Noor, 1995; Fletcher, 2001; Garland, 2004). Majority of investigators revealed that social support have moderating/buffering effect on stress outcome (Sud and Malik, 1999; Jenkins and Elliot, 2004; Albar and Garcia-Ramirez, 2005). However, few studies also observed main/direct effect of social support on stress including burnout (Russell, Altamaier and Van Velzen, 1987; Lingard and Francis, 2006). Another group of studies reported that social support and burnout is negatively correlated to each other (Linzier, Gerrity, Douglas, Mc Murray, Eric, Williams and Konrad, 2002; Baruch-Feldman, Brondolo, Ben-Dayan and Schwartz, 2002; Gillespie and Melby, 2003; Young, 2004; Talmor, Reiter and Feigin, 2005). A number of studies also indicate a negative relationship between many facets of social support and depression. Study revealed that decline in social support resulted in depression (Bell, Le Roy and Stephenson, 1982; Romano and Turner, 1985; Schulz and Williamson, 1991; Snapp, 1992; MaloneBeach and Zarit, 1995; Kanacki, Jones and Galbraith, 1996).

Social support has been found to be strongly associated with experience and expression of angry feelings (Stoney and Engebretson, 1994; Brooks, Thomas and Dropleman, 1996; Greenglass, Burke and Konarski, 1997; Marjanovic,
Greenglass and Coffey, 2006). Greenglass, Fiksenbaum and Burke (1996) reported that supportive networks lessen the angry feelings among individuals at workplace. Similar findings were observed in another study by (Schutzwohl and Maercker, 2000). Given the presumed importance of psychological stressors, perceived social support, and their synergetic relation with emotional vital signs (anger and depression) in negative well-being consequences (Kleiber and Enzmann, 1990), it seems important to view these variables in combination in order to reconcile the conflicting findings.

Burnout at workplace has been a major focus of research in several investigations (Lavendero, 1981; Houtman and Kompier, 1995; Lozinskaia, 2002; Antoinette, 2005). Researchers observed that burnout syndrome is prevalent among human service professionals including, doctors (Esteva, Larraz and Jiménez, 2006), social workers (Acker, 1999), radiographers (Akroyd, Caison and Adams, 2002; Sciaccitano, Goldstein and Diplacido, 2001), academic oncologists (Haley, 2003), teachers (Bauer, Stamm, Vinrich, Wissing, Müller, Wirsching and Schaaranschmidt, 2006), librarians (Togia, 2005), rehabilitation supervisors and principals (Lubofsky, 2002). Findings of these studies indicated that all these professionals experienced burnout at different levels. Other group of investigators has also reported an association between burnout and gender roles. Studies have shown that females experienced significantly more burnout than male colleagues (Welsch, 1998; Johnson, 2006). However, other studies observed no gender specific differences (Demirel, Güler, Toktamis, Özdemir and Seze. 2005). In terms of component of burnout researchers have observed that females scored higher on emotional exhaustion than males (Greenglass and Burke, 1988; Ogus, 1990; Greenglass, Burke and Ondrack, 1990), whereas contrary to this finding, a study on teachers reported that males experienced higher emotional exhaustion (Van Ginkel, 1987). These inconsistencies call for further investigations.

Burnout has many implications for nursing care as well as for caregiver’s health and costs related to health services (Cherniss, 1980; Schlachta-Fairchild, 2000; Chen and McMurray, 2001; Gillespie and Melby, 2003; Bakker, Le Blanc and Schaufeli, 2005). From the preceding review of literature, it is evident that nurses are considered to be particularly susceptible to the danger of burnout because
of the very stressful nature of their work (Malach-Pines, 2000). Many studies have indicated that personal and environmental factors contribute to nursing burnout (Sumi and Nagae, 1998; Fujino, Hayashi, Maeda and Fukuguwa, 1999; Higashiguchi, Morikawa, Miura, Nishijo, Tabata, Ishizuka and Nakagawa, 1999). Studies on nurses working in different areas such as geriatric (Astrom, Nilsson, Norberg, Sandman and Winbald, 1991), forensic (Happell, Pinkahana and Martin, 2003), community mental health nurses (Prosser, Johnson, Kuipers et al., 1996; Carson, Maal, Roche, Fagin, De Villiers, O'Malley, Brown, Leary and Holloway, 1999), psychiatry (Jaracz, Górna and Konieczna, 2005), indicated that nurses experienced burnout, however, there was diversity in the level of burnout depending on the specialization at work (Gillespie and Melby, 2003). Few studies have reported that feelings of emotional exhaustion increased among nurses when the amount of workload increased (De Jonge, Janssen and Landeweerd, 1994; Bakker, Le Blanc and Schaufeli, 2005). Taken together these studies highlighted the need to consider occupation specific measures, sample characteristics (race, culture, gender, age, nature of control group), job characteristics and type/nature, and cultural sensitivity of psychological instruments (Vander Doef and Maes, 2002). Review also revealed that majority of studies used cross-sectional design. Investigators have observed that cross-sectional studies further call for a replication using a longitudinal design in order to determine causality of relationship between the variables.

Investigators have also attempted to study the emotional vital signs (anger and depression) in relation to burnout syndrome among different occupations (Potter, 1998; Ozgencil, Unal, Okyavuz, Alanglu and Tulunag, 2004; Toker, Shirom, Shapira, Berliner and Melamed, 2005). Findings of these studies showed that anger as well as depression correlates differentially with burnout. Internalized anger and frustration could lead to burnout (Leiter, Clark and Durup, 1994). Zoccali, Campolo, Carroccio, Cedro, Muscatello, Pondolfo, Di Rosa and Meduri (1999) revealed that overall anger level was directly proportional to the level of burnout. Another study reported that anger out was correlated with depersonalization component of burnout (Firth, McKewon, McIntee and Britton, 1987). Likewise, an association between anger and burnout has been reported in other studies (Mytych, 1981; Stephenson, 1990; Thomas, Riegel, Gross and Andrea, 1992; Lee and Ashforth, 1996; Riddle, 1999; Maslach, 2005).
Great deal of research has shown that there is a close association between burnout and depression (Kahill, 1988; Glass and McKnight, 1996; Thomas, 2004). Studies conducted on various occupational groups such as teachers (Greenglass, Burke and Ondrack, 1990), physicians (Korkeila, Töyry, Kumpulainen, Toivola, Räsänen and Kalimo, 2003), health caregivers (Dorz, Novaro, Sica and Sanavio, 2004), nurses (Glass, McKnight and Valdimarsdottir, 1993) revealed a significant correlation between burnout and depression. Only few studies have observed the importance of examining configuration (anger and depression), situational factors vis-à-vis their combined role in burnout. There is also evidence suggesting the chronic socio-cultural stressors interact with emotional variables in triggering burnout among working population (Zammuner, Lotta and Galli, 2003), particularly nurses (Wamsley, 1995).

A perusal of literature makes it amply clear that role of stress, emotional vital signs (anger and depression), social support in burnout among nurses has not been adequately investigated in the Indian setting. Even Western research in the area have considered single variable. No Indian study has so far considered stress, anger, depression, social support, and burnout simultaneously to study their synergetic impact. The present study can be seen as integration when compared to previous studies. The hypotheses were framed on the backdrop of available evidence.

3.8. Hypotheses

1. Nurses will report higher overall job stress, and its perceived severity and frequency of occurrence of job stress events than their controls.

2. Nurses would report higher trait anger and higher anger suppression (Ax/In) relatively lesser outward anger expression (Ax/Out) as well as higher anger control (Ax/Con) than their controls.

3. Nurses will report higher depression than their control counterparts.

4. There will be a difference between nurses and controls on perceived overall support (non-organizational and organizational).
5. Nurses would report higher emotional exhaustion, depersonalization, and reduced personal accomplishment than their controls.

6. Job stress (severity and frequency), emotional vital signs (trait anger, modes of anger expression (Ax/In, Ax/Out, Ax/Con), and depression) and burnout (emotional exhaustion, depersonalization, and reduced personal accomplishment) will correlate differentially in terms of direction and magnitude in nurses and controls.

7. Perceived overall support (non-organizational and organizational) would have a negative relationship with burnout (emotional exhaustion, depersonalization, reduced personal accomplishment) in nurses and controls.

8. A subset of overall job stress, trait anger, modes of anger expression, depression, perceived overall support and burnout would be a significant discriminator of nurses from their controls.

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