Considerable amount of literature has demonstrated that job stress is a widespread problem across industry, but it is endemic in human services where nurses from the largest group (Cherniss, 1980; Schaufeli and Greenglass, 2001). Over the years there has been growing concern about stress in nursing (O'Donnell, 1996; Dinsdale, 1998). Overall the literature convincingly demonstrate that stress is a long standing problem for nurses irrespective of nationality, type of nursing, training area, or type of clinical or non-clinical work (Cox and Leiter, 1994; Aiken, Clarke and Sloane, 2002; Allen and Mellor, 2002).

A vast body of literature suggests that emotional vital signs (anger and depression) are pervasive in workplace especially in human services where working with people implies having frequent and intense relationships and constantly having to deal with their emotions as well as one’s own, not only does it require having good technical skills but also good relational ones (Zammuner, Lotta and Galli, 2003; Li Calzi, Farinelli, Ercolani, Alianti, Manigrasso and Taroni, 2006). It has been well established that emotion of anger and depression is prominent among nurses and frequently been experienced by nursing professionals at their workplace (Scalzi, 1990; Faulkner and MacKay, 2000; Robert, 2000; Smit, 2003, 2005). Emotions in the workplace are getting the same recognition that cognitive and behavioural aspects have gotten for the last 40 years (Ashkanasy, Härtel and Zerbe, 2000). However, very little is actually known about emotions in the workplace. Even though emotional exhaustion is regarded as the core dimension of burnout, emotional work demands have only rarely been considered as predictors of burnout (Zapf, Vogt, Seifert, Mertini and Isic, 1999; Zapf, Seifert, Schmutte, Mertini and Holz, 2001; Brotheridge and Grandey, 2002). A substantive amount of literature indicated that nurses are deemed to be at a high risk of experiencing burnout than some other human service professionals because of the implicit relation of job stress to burnout (Crackmore, 1987; Duquette, Kerouac, Sandhu and Beaudet, 1994). The stressful condition prevalent in
healthcare settings have been found to increase burnout among nurses (Topf and Dillon, 1988; Schmitz, Neuman and Oppermann, 2000). Although researchers have shown the relationship of stress, emotional vital signs (anger and depression) and burnout, however, less is known, about the ways in which individuals attempt to deal with strain, which they experience as a result of adverse conditions or about associations between job stress, negative emotions, perceived/available support (non-organizational and organizational) and burnout. The beneficial effects of social support on a person's physical and psychological wellbeing have been demonstrated by several investigators (Russell, Altamaier and Van Velzen, 1987; Greenglass, 1993).

Since nursing profession has been described as particularly susceptible to job stress and burnout (Edelwich and Brodsky, 1980; Marshall, 1980; Lindsey and Attridge, 1989; Foxall, Zimmermann, Standley and Bene, 1990), it is important to examine this occupation and person's response to stress involved in them. Moreover, many studies have dealt with specific stresses, emotional vital signs (anger and depression), perceived support (non-organizational and organizational) and burnout (emotional exhaustion, depersonalization, reduced personal accomplishment). Majority of these studies did not utilize component wise index of job stress, anger and burnout. There are only few studies in literature that dealt with job stress considering its frequency and severity, trait anger, modes of anger expression, perceived support and its relationship to all three components of burnout separately. Consequently, it is difficult to identify from the existing literature the relevant research for the variables investigated in the present study. However, every possible effort has been made to seek supportive evidence of related studies while explaining the results at appropriate points in this chapter.

The present study dealt with the job stress, emotional vital signs, perceived social support and burnout in nursing profession and compared them with comparable group of working women personnel within the same work environment, along with exploring the relationship between burnout and other variables (job stress, trait anger, modes of anger expression, depression and perceived overall support (non-organizational and organizational).
6.1. Comparison of Nurses and Controls on Job Stress (Severity and Frequency), Emotional Vital Signs (Trait Anger, Modes of Anger Expression (Ax/In, Ax/Out, Ax/Con), and Depression), Perceived Overall Support (Non-Organizational and Organizational), and Burnout (Emotional Exhaustion, Depersonalization and Reduced Personal Accomplishment)

6.1.1. Job Stress

The findings of the present study (Table 5.1) indicated a significant difference between nurses and controls on overall job stress. Nurses reported higher overall job stress than their control counterparts. This means that nurses being stressed more frequently experienced a situation wherein job related factors interact and disrupt their psychological and physical condition which force them to deviate from normal functioning.

The finding of the present study that nurses experienced higher levels of stress adds further support to the literature indicating prevalence of high level of job stress among nurses (Kushnir, Rabin and Azulai, 1997; Leino-Kilpi and Suominen, 1997; Kulbe, 2001; McGrath, Reid and Boore, 2003). In a study conducted on nurses, Tyler, Carroll and Cunningham (1991) reported that nurses working in both private and public hospital experienced high level of stress due to high workload and the experience of death and dying. In another study on nurses, Wolfgang (1988) revealed that nurses experienced higher level of job stress when compared to other professionals e.g. physicians and pharmacists. Frequency of exposure to individual stressful job situations also differed significantly among the professional groups. Similarly, Jones, Janman, Payne and Flick (1987) found that mental health nurses reported higher level of stress when compared to some other employed samples. Another study revealed that nurses experience more stress situations than teachers because their work is less recognized by the society than the teachers work (Lavanco, 1997). Similar findings were observed by Numerof and Abrams (1984). They found that nurses in intensive care units, emergency rooms and nurseries reported higher levels of stress. Some studies on other medical professionals such as physicians, palliative caregivers, reported that these professionals also experienced high levels of stress (Burke and Richardsen, 1990; Chandra, Jairam and Jacob, 2004; Cohen and Patten, 2005). More recently, Linzer,
Gerrity, Douglas, McMurray, Eric, Williams and Konrad (2002) found that physicians experience higher levels of stress. In another study, Niaz, Hassan and Ali (2003) found that women physicians reported higher levels of stress. Researchers have suggested that healthcare professionals working in health and medical services experience higher levels of stress due to the nature of their work (Postle, 2002; Niaz, Hassan and Ali, 2003; Suttinen, Kivimaki, Elsvainia and Foma, 2005; Sharma, 2005; Gersch and Teuma, 2005). A substantial body of evidence suggests that high levels of stress are endemic throughout nursing profession, and many of these stressors may be unique to healthcare profession (Payne and Firth-Cozen, 1987; Calboun and Calboun, 1993). Researchers have claimed that job stress among nurses stems from the nature of their work. In nursing profession, researchers have found number of sources of stressors. This includes many factors such as heavy workload, role conflict and ambiguity and so on (Ratliff, 1988; Sumi and Nagae, 1998; Higashiguchi, et al., 1999; Healy and McKay, 1999; Xianyu and Lambert, 2006). Similarly, Anderson, Cooper and Willmott (1996) reported 9 sources of stress related to nursing, namely, task, workload, death and dying, uncertainty, responsibility, role conflicts, relationships, homework conflict, and fulfilling others expectations. Marshall (1980) mentioned 16 sources of nurse’s stress that vary with specialization, level in the organization, experience, type of hospital, and type of unit. Hingley (1984) also pointed out that nursing by its very nature is an occupation subject to high degree of stress. Further, it is also reported that high levels of stress among nurses occur due to their everyday confrontation with stark suffering, grief, and death. This has been reported by various researchers (Secomb and Ball, 1992; McLeod, 1995; Glazer, Stetz and Izsso, 2004). In a study on nurses, Bianchi and Regina (2004) reported that a major source of stress among nurses was their working conditions. Several other researchers indicated that women experience disproportionately additional stress than their male counterparts (Vrgrecha and Mishra, 1990; Wells, Colbert and Slate, 2006; Griffin, 2006). For example, Cohen and Patten (2005) found that females reported stress more frequently than males. Similarly, Alluissi and Fleishman (1982) suggested that factors such as gender play a major role in nurses’ perception of job stress. Also they found that women are influenced by
interpersonal conflicts a source of stress, more than men. As a whole, nurses are subjected to a great amount of stress due to the nature of their work. This produces a number of negative consequences for nurses themselves and for their work organizations.

Although both the groups were females in the present study, the research evidence indicates that nursing profession is more stressful and demanding. This makes nurses a candidate for high level of stress experience. Daily demands of their job affect their lives which in turn increase the level of stress in their jobs and makes their life vulnerable to burnout (Lee, Song, Cho, Lee and Daly, 2003; Glazer, 2005; Kennedy, 2005). The findings of the present study as well as other studies in literature are consistent in indicating that nursing is stressful profession. It is reported in the Western studies that nurses experienced higher levels of stress than other professionals (Hoffman and Scott, 2003; Bianchi and Regina, 2004). Although scant in number, Indian studies also reported similar findings (Virk, Chhabra and Kumar, 2001; Parikh, Taukari and Bhattacharya, 2004; Chandra, Jairam and Jacob, 2004; Tankha, 2006). Several other investigators suggested that by job stress is meant negative environmental factors or stressors (e.g. workload, 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 stressors could be ‘physical’ such as workload, ‘psychological’ such as death of patients and incertitude of treatment, and ‘social’ such as interpersonal conflicts (Cooper and Marshall, 1976; Gray-Toft and Anderson, 1981b).

Taken together the findings of these studies suggest revealed that stress is an inherent part of nursing profession. Nurses often experience stress arising from their environmental conditions and from daily demands of their job.

Another finding of the study (Table 5.1) revealed that nurses experienced perceived severity of job stress more than controls. This means that nurses perceived more stressful events as threatening which demand readjustments than their comparable controls. Also the study (Table 5.1) revealed that nurses experienced stressor events more frequently than their control counterparts.
There is paucity of studies considering severity and frequency of occurrence of job stress events among nurses as well as other professionals (Turnage and Spielberger, 1991; Spielberger and Reheiser, 1994; Jenkins and Elliot, 2004). There is hardly any research, wherein nurses have been asked to describe in their own words about the work conditions they experience as stressful, how stressful work conditions make them feel, and what are the most effective means of dealing with stress at work (Marshall, 1980; Steffen, 1980). Researches are also lacking on data-based studies on the relationship between perceived work stress and actual conditions, and on the impact of job stress on nurse’s health (Gentry and Parkes, 1982). Unfortunately, only a few empirical studies have been conducted that compared the nurses and other professionals on the perception of severity and frequency of stress experience. Healy and McKay (1999) reported that nurses rated their workload as highly stressful in terms of frequency of its occurrence and its perceived impact upon themselves. Another study on university and corporate employees, and senior military personnel considering both frequency and severity of job stress events, using Job Stress Survey (JSS), the study revealed that corporate employees reported higher levels of perceived severity of job stress than the other group, whereas military personnel reported that they more frequently experienced almost all of the 30 job stress events (Spielberger and Reheiser, 1994a). Recently, Rothmann, Vander Colff and Rothmann (2006) studied occupational stress in nurses and found that severity of stressors was higher for professional nurses as compared to auxiliary and enrolled nurses. In another study on 296 nurses working with medical units, critical units, operation rooms, and psychiatric units in different hospitals, Cronin-Stubbs and Rooks (1985) observed significant differences in the frequency and intensity of occupational stress and burnout among the subjects. Critical and medical nurses in this study encountered occupational stressors more frequently and intensely than psychiatric and operation room nurses. Stress in psychiatric nurses further attributed to administrative and organizational factors.

In the present study (Table 5.1) the higher scores of nurses on severity and frequency of occurrence of job stress events, may be contributed by specific sources of stress, that are commonly encountered in the workplace, e.g.
working overtime, conflicts with other departments, excessive paper work, inadequate or poor quality equipments, less motivated workers, inadequate support from supervisors, experiencing negative attitude towards the organization and so on. (Spielberger and Vagg, 1999; Cooper and Marshall, 1976). Researchers have also indicated that perceived severity of job stress events could lead to perceive other events to be more stressful as well. This has been suggested by Trygstad (1986) that stress was more likely to occur when the organizational climate was experienced negatively and that stress was increased when other failed to validate the importance of the situation for the individual. This lack of support when dealing with particular situation can make that situation more stressful. Thus the stress inherent in nursing profession is compounded. It appears that while some aspects of nursing might be considered to be inherently stressful, the stress they generate can be moderated or exacerbated by the contrast within which the events takes place. Experience of each stressful event might make experiences of other stress events more intense. In the present study, nurses were full time employee and they have to perform their duties in different departments of the hospital. Their duties usually shifted from one department to another, nurses not only performed their duties in different wards but shifted over to some other areas of nursing, which probably makes them more vulnerable to perceive job stress events as more acute and they more frequently experienced these stressful events. Similar findings have been reported by a number of researchers, who pointed out that the level of stress varies, depending on the type and nature of work nurses performs (Wolfgang, 1988; Stolley, Buckwalter and Shannon, 1991; Kerasiatis and Motta, 2004). In a study on nurses, Jones, Janman, Payne and Flick (1987) found that mental health nurses reported higher level of stress when compared to some other employed samples. The finding of the present study that nurses reported higher overall job stress and its perceived severity and frequency of occurrence more than their comparable controls is also consistent with the available research literature.
6.1.2. Trait Anger and Modes of Anger Expression

The present study (Table 5.1) revealed that nurses reported significantly lesser anger expression, and higher anger control when compared to their control counterparts. However, there was no significant difference on trait anger and anger-in mode of anger expression.

Growing body of literature indicated that nurses and other human service professionals frequently experience the emotion of anger at work place (La Duke, 2000; Redman and Fry, 2000; Thomas, 2003; Smit, 2005; Sun, Long, Boore and Tsao, 2006). However, only few studies have investigated the experience and expression of this negative emotion of anger among human service professionals as well as other professionals (Blaha, 1995; Sloan, 2004). In a study on nurses, Thomas (2004) revealed that nurses suppress as well as express their anger towards self or others. In a recent study on nurses, Li Calzi, Farinelli, Ercolani, Alianti, Manigrasso and Taroni (2006) observed that although anger was a common feeling among rehabilitation professionals including (nurses, technicians, therapists, physicians) however, no differences were found among four categories of professionals. Further, it was revealed that these professionals scored high on the anger directed inwards rather than outward. Kushnir, Rabin and Azulai (1997) found that nurses felt anger at workplace and more often suppress their angry feelings. Similar findings were observed by other investigators (Brooks, Thomas and Droppleman, 1996). Wilson, Gross and Beck (1994) found that police officers were angered by criminal suspects. Officers who experienced the most resistance from suspects expressed more intense anger, and reported angry feeling across number of situations and often internalized their anger. Fernandez and Turk (1995) pointed out that the ventilation of anger (notwithstanding its tension relieving properties) is often unpleasant to others, the consequences of which can be source of remorse for oneself.

Gender socialization process has also been found to influence the expression of angry feelings. Kemp and Strongman (1994) pointed out that alleged gender differences in anger a recent phenomenon arising from socialization practices, in which males were taught to express anger and females were taught to suppress it. Researchers have also observed that gender differences in anger
expression was due to differential socialization process and found that girls and women scored higher on anger suppression and control whereas boys and men scored significantly higher on anger expression (McConatha, Leone and Armstrong, 1997; Cox, Stabb and Hulges, 2000). However, some studies found no gender difference in anger (Averill, 1983; Fine and Olson, 1997; Ferguson, Eyre and Ashbaker, 2000). Although, scant in number empirical studies indicated that gender roles have significant influences on both anger related behaviour and anger proneness. In the workplace traditional typed women receive approval from others and express less interpersonal strain (Long, 1989). Kopper and Epperson (1991) found that higher femininity is significantly related to higher anger suppression and lower anger expression. Contrary to the findings of present study in case of nurses, a number of studies in literature have reported that nurses not only suppress or control their angry feelings rather they also express their angry feelings at workplace. More recently, Nathaniel (2006) found that nurses expressed anger towards others at their workplace. In another study on nurses, Baskin (2004) revealed that nurses express anger at doctors. Bongard and Absi (2005) examined domain specific anger expression behaviour and subjective work stress among male and female nurses using 3 altered version of State-Trait Anger Expression inventory (STAXI) and Job Stress Survey (JSS). It was revealed that female nurses had higher score on anger-out and lower on anger-control in original and the home version of STAXI. Sharma, Sood and Spielberger (1999) reported that the more Type-A the nurses the more likely was that they experience angry feeling reaction than their Type-B counterparts. Type-A oriented nurses reported greater anger expression (ax/ex, ax/in, ax/out, ax/con) as compared to their counterparts with Type-B orientation. Allan (2001) found that nurse’s anger was directed towards patients with whom they were not emotionally attached or concerned. Smit (2005) 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. Similar findings were reported by several other investigators (Hunter and Ross, 1991; Cole and Slocumb, 1993; Van Wissen and Woodman, 1994). In another study on nurses, Thomas (2003) reported that most of the nurses’ exhibit mismanaged anger quite frequently in the form of outward
expression of anger. These expressions are often directed towards other in a destructive manner. In the present study nurses reported less outward expression of angry feelings which is not in line with above mentioned studies. However, as discussed earlier, a few studies also reported that nurses express as well as suppress their angry feelings but there is hardly any study in literature which is directly compatible with the finding of the present study which shows that nurses expressed less anger outwardly than controls.

Another finding of the present study (Table 5.1) indicates that nurses reported significantly higher level of anger control than comparable control group. This means that nurses tend to invest great deal of energy in monitoring and preventing the expression of anger. Similar findings have been reported in literature. In a descriptive study on nurses, Chase (2005) found that most of the nurses reported feelings of anger towards patients. Few of them also reported that they used coping techniques to deal with their anger so that their angry feelings are not projected on to patients hence control the expression of anger. Kemp and Strongman (1994) pointed out that over the years, Western culture has considered anger as undesirable emotion, symptomatic of irrationality and has considered the use of will to control its expression. Pennebaker (1992) suggested that nobody can escape the basic human dilemma of how to deal with anger and hostility but the guidelines to cope with these conditions vary across culture. Yet in every culture individuals must learn one way or another to inhibit anger and control aggressive behaviour, to function in the social world. Smith and Ellsworth (1985) found that anger plots into the quadrants of human control and other responsibility control. This type of finding indicates that anger is more likely to be due to human action and is associated with others responsibility. In the present study, nurses and controls although working in the same organizational setup, the work of nurses is more demanding and they have to perform activities which directly impact their patients care. Nurses’ expression of anger is also associated with responsibility towards their patients hence, it would be expected that nurses may control their angry feelings or regulate emotional expression in a mandated way so that their quality of care could not be impeded by their negative feelings. Researchers have also suggested that people in different occupational work roles may have different
expectations on the emotional expression of anger that is required for that role (Glomb and Hulin, 1997; Fitness, 2000). This view is also in line with the trend which indicates that nursing is a profession where role of nurses is to provide rich quality of care for the patients therefore; there is a perceived requirement from nurses to hide or control their negative emotions (Brotheridge and Grandey 2002).

Although anger is a universal emotion, each culture has devised its own way of dealing with it. Experience and expression of emotion of anger is governed by socio-cultural system in which the subject exist (e.g. Mesquita and Frijda, 1992). The higher anger control among these female nurses in the present study may be attributed to the cultural training from childhood to keep their emotions under control. Studies on gender differences in emotions have also found the influence of cultural history on emotion, and suggested that experience and expression of and control of emotion may not be same in Eastern and Western culture (Bond, 1991; Tanzer, Sim and Spielberger, 1996). Tanzer, et al. (1996) found that control of anger is more dominant characteristics of women from Eastern culture for Singaporean females than for Singaporean men.

Research evidence suggests that anger is very common emotion among nurses. However, only few studies have mentioned the experience and expression of this negative emotion. This negative emotion of anger among nurses as well as other professionals has not been investigated in Indian setting adequately. Most of the studies have been conducted in the Western setup. However, these findings of the present study should be probed further for plausible culture specific generalizations.

6.1.3. Depression

A perusal of (Table 5.1) reveals a significant difference on depression. Nurses in the present study, reported significantly higher depression than their control counterparts. This elicits that nurses experienced negative moods and behavioral changes more when compared to controls.

There is strong evidence that depression is a common problem in the workplace (Taris, Bok, and Calje, 1998; Vernarec, 2000; Goetzel, Ozminkowski, Sederer, Mark, 2002; Doherty, 2002). Several investigators suggested that even mild depression might have been significant in workers with co-existing medical
Conditions. Depression and depressed mood pervaded across many work settings (Sullivan, et al., 1999; Olson, 2000). One study by Goldberg and Steury (2001) found that approximately 2-4 percent of workers suffer from major depression. Other studies pointed out to be fall in the upper end of the range of depression, indicating that major depression in the workforce likely occurs at a rate comparable to that in the general population (Kessler and Frank, 1997; Dewa, Goering, Lin and Paterson, 2002; Stewart, Ricci, Chee, Hahn and Morganstein, 2003). In another study conducted by Eaton, Anthony, Mandel and Garrison (1990), it was found that depression vary across occupations (lawyers, teachers, nurses), even after taking into account gender balance in each occupation. The authors suggested that work settings where the workforce is predominantly females, such as healthcare, would be expected to show much higher rates of depression (Nolen-Hoeksema, 1990; Kessler, et al., 1993).

Researchers pointed out that depression is a problem for healthcare industry. Overall medical community including physicians, practitioners, dentists, nurses, exhibited a higher level of depression than other professional groups (Gallery, Whitley, Anzinger and Revicki, 1992; Rout, 1999; Tyssen and Vaglum, 2002; Peele and Tollerud, 2005). Investigator found that nursing is a profession where depression is apparent and well documented (Faulkner and Mackay, 2000). Researchers have also pointed out that rates of depression in nurses were higher than in general population (Landsbergis, 1988; Skinner and Scott, 1993). Similar findings were reported by other investigator (McLeod, 1999). Nursing is an occupation that takes care of human health. Depression among nurses has been attributed to different reasons, such as high stress existing in hospitals, critical status of the patients in pain, arousing nurse’s sympathy and higher number of female nurses in hospitals compare to male nurses. Mokgethi (2004) stated that nurses experienced depression due to nature of their work. Sullivan (1987) pointed out that care experience is interchangeably linked with relational responses of care giver, significant both in what is said and the manner in which it is delivered.

The finding of the present study is consistent with those of several investigations reported earlier. A number of studies reported depression prevalence among nurses as well as other healthcare professionals (Glass, McKnight and
Valdimarsdottir, 1993; Frank, Erika and Arden, 1999; Baba, Galperin and Lituchy, 1999; Arora, 2002; Gillen, 2004). Investigators studied severity of depression among nurses and found that 48 percent of nurses suffering from severe, whereas 76 percent and 26 percent from moderate and mild depression respectively (Tang, Chen, Chen, Chang and Lin, 2005). In another study, Ozgencil, Unal, Okyavuz, Alanglu and Tulunag (2004) assessed depression and burnout among ICU nurses working in university hospital and state hospital and found that both of the groups experienced depression at their workplace. University hospital nurses however, scored higher on depression. Similar findings were reported by (Gentry, Foster and Forehling, 1972). In a study on nurse educators, Scalzi (1990) revealed that top level nurse educators experienced relatively higher levels of depression. Likewise, Farahmand and Nasiri (2004) investigated depression among staff nurses and nurse educators and reported that depression was experienced by single ones (e.g. separated, widow), and female staff on rotating or night shifts. In another study on nurses, Morano (1993) found that married nurses experience less depression when compared to unmarried nurses. In a study on critical care nurses, Jeanne (2002) revealed that night shift nurses experienced significantly more depression than day shift nurses. Greenglass and Burke (2000) reported that greater workload contributed to depression among nurses. Similarly, Thomas (1997) reported that depression among nurses was significantly correlated with increasing workload, understaffing, job insecurity and perpetual organizational change. In another study, Baba, Galperin and Lituchy (1999) reported that nurses felt work related depression. McCleave (1993) found personal and professional factors to be a source of depression feelings among nurses. Researchers have pointed out that different job specificities (e.g. psychiatry, critical care) are also associated with levels of depression experience (McLeod, 1999; Tselebis, Moulou and Ilias, 2001; Nouf, Nael and Aber, 2004; Ozgencil, et al., 2004). Similar findings have been reported by several investigators in other healthcare professionals. Gallery, Whitley, Anzinger and Revicki (1992) found that physicians reported high levels of depression at work. Peter (1994) reported that working conditions of medical practitioners were associated with the feelings of depression among them. In
another study, Thommasen, Connelly, Lavanchy, Berkowitz and Grzybowski (2001) found that 31 percent physicians suffered from mild to severe depression.

Although majority of the researches on depression at work place particularly among human service professional reported higher depression among nurses, few studies have also reported contrary findings that nurses experience lower levels of depression. Trinkoff, Eaton and Anthony (1991) found that nurses were not more likely to suffer from depression as compared to non-nurses controls. Another study by Chan and Huak (2004) found that when compared to doctors nurses reported lesser depression. Similarly, Rout (1999) revealed that nurses scored lower on depression. Lee, Eo, Park and Lee (2002) examined the levels of depression experienced by hospital nurses. It was revealed that Korean nurses experienced significantly lower levels of depression. These inconsistencies in research findings related to depression among nursing investigations calls for future research. It may be worthwhile to examine the type of depression in terms of job specialty, working condition and nature of job among human service professionals rather than focusing only on traditional description of depression. Taken together research evidence cited above calls for more prospective longitudinal studies as to generate better understanding of depression experience among nurses. Moreover, it is important to mention that most of the studies cited above indicating prevalence of depression among nurses involves all aspect of their life ranging from the more intimate to the social and working aspect

6.1.4. Burnout

Table (5.1) illustrates that nurses reported significantly higher level of emotional exhaustion than their control counterparts. This finding indicates that nurses are overextended and exhausted by their work. Once emotional exhaustion is established it manifested by both physical fatigue and a sense of feeling psychologically and emotionally drained. Individuals often feel that they are no longer able to give of themselves (Maslach and Jackson, 1986; Wright and Cropanzano, 1998).

Likewise, the study (Table 5.1) also revealed that nurses reported significantly higher level of depersonalization. This means nurses tend to exhibit
more negative, cynical and callous attitudes and feelings towards recipients of their service than controls. This callous or even dehumanized perception of others can lead staff members to view their clients as somehow deserving of their troubles (Ryan, 1971). However, no significant difference was observed (Table 5.1) between nurses and controls on reduced personal accomplishment.

The findings of the present study are consistent with previous studies which reported that nurses experienced higher levels of emotional exhaustion and depersonalization (De Jonge, Janssen and Landeweerd, 1994; Turnipseed and Turnipseed, 1997; Bilici, Mete, Soylu, Bekaroglu and Kavakcy, 1998; Bussing and Glaser, 1999; Anis-ul-Haque and Khan, 2001; Arora, 2002; Jaracz, Górska and Konieczna, 2005). More recently, Edwards, Burnard, Hannigan, Cooper, Adams, Juggessur, Fothergill and Coyle (2006) studied 86 community mental health nurses and found that 36 percent of nurses experienced high levels of emotional exhaustion, 12 percent depersonalization and 10 percent experienced low levels of personal accomplishment. Zohar (1997) reported that emotional exhaustion was an outcome of daily demands in nurses. Similar findings were reported by Cheuk, Swearse, Wong and Rosen (1998) that a heavy workload exerted debilitating effect on nursing burnout. Vahey, Aiken, Sloane, Clarke and Vargas (2004) reported that nurses working in AIDS units scored average range of emotional exhaustion, depersonalization and a sense of reduced personal accomplishment. Richardson, Burke and Leiter (1992) compared nurses, physicians and other health care professionals on burnout components and observed that nurses reported significantly higher level of emotional exhaustion than did the physicians. However, no significant difference was observed on other two components of burnout. Further, it was revealed that there was a tendency among nurses to score higher on depersonalization as well, but the difference was not significant. Consistent with the findings of the present study (Table 5.1), Piko (2006) has observed that nurses experienced higher levels of emotional exhaustion, and depersonalization. Earlier, similar findings were observed by Wamsley (1995) who found that 34 percent of nurses reported higher levels of emotional exhaustion, 32.8 percent higher level of depersonalization, and 32.5 percent low personal
accomplishment. 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. Bussing and Glaser (1999) found that nurses become emotionally exhausted when system was over stretched or challenging.

Maslach and Jackson (1986) suggested that burnout among healthcare workers is a critical issue, as organizations seek to provide high-quality patient-care; hence they are especially susceptible to burnout. Researchers have demonstrated differences in dimensions of burnout for different service and caring professions (Singh, Goolsby and Rhoads, 1994). Interpersonal demands such as intensity and the frequency of client interactions and the expectations for positive displays were expected to be much higher for customer service representatives (Hochschild, 1983; 1979) and for human service workers than for other employees (Smith, 1991; Cordes and Dougherty, 1993; Hawthorne and Yurkovich, 1994). Occupations which have a preponderance of female employees, such as nurses, social workers, and librarians generally produced higher scores on all three components of burnout (Schaufeli and Enzmann, 1998; Maslach, Schaufeli and Leiter, 2001). Burnout is more predominant in caring professions (Duquette, Kerouac, Sandhu and Beaudet, 1994). Researchers have stated that nurses as being related to human service profession, and belongs to care-giving environment are therefore considered, particularly susceptible and at higher risk for burnout (Duquette, Kerouac, Sandhu, Ducharme and Saulnier, 1995; Anis-ul-Haque and Khan, 2001). Investigating nature of work of nurses, Foley (2001) pointed out that nurses are required to work some mandatory or unplanned overtime every month with long hours. In addition, increased patient-ratios and increased work demands, together contribute to the increasing nursing burnout rates. Taris, Kompier, Geurts, Schreurs, Schaufeli, De Boer, Sepmeijer and Wattez (2003) studied factors affecting burnout among nurses and found that factors such as individual characteristics, threats to job control, hardness of training, workload, interpersonal relationships with colleagues, knowledge of nursing, bureaucratic-political
constraints, level of education, night shifts, being hospital-based, working on medical and surgical wards and negative work-home interference associated with job burnout. Likewise, other group of investigators also observed some other factors related with burnout in nurses. It was reported that nursing staff, face working places with blood and urine, disturbed sleeping pattern, frequent emergency situations, inappropriate expectations from patients and their relatives, insufficient nursing staff and lack of authority in decision-making, all of which can contribute to job burnout among nurses (Leiter and Maslach, 1988; McAbee, 1999; McGrath, Reid and Boore, 2003). Previous research has noted that burnout is a highly personal happening inside the nurses (Storlie, 1979). There are studies underlying nurse’s vulnerability to burnout syndrome (Farabaugh, 1984; Zellars, et al., 2004). In a study conducted on hospital nurses, Chung and Corbett (1998) reported that nurses who stay for long time in hospitals can suffer from burnout which can affect their performance at work. Carson, Maal, Roche, Fagin, De Villiers, O’Malley, Brown, Leary and Holloway (1999) examined burnout among mental health nurses and found that most of the nurses scored higher on all the components of burnout however, few of them scored low on all the three components. Earlier, Pagel, Witlman and Elaine (1986) studied pediatric nurses and found that nurses showed evidence of burnout. Other researchers also reported that nurses experienced burnout at their workplace (Beemsterboer and Baum 1984). More recently, Jaracz, Górna and Konieczna (2005) found that nurses working in psychiatric hospitals experienced average and high levels of burnout. Stewart and Arklie (1994) revealed that nurses whose roles were not clearly defined and perform extra duties experienced higher levels of burnout. Recently, Zhu, Wang, Wang, Lan and Wu (2006) have also reported that nurses significantly scored higher on burnout.

The finding of the present study revealed that nurses reported significantly higher level of emotional exhaustion when compared to controls. There are several plausible reasons for this finding. Van Dierendonck, Schaufeli and Buunk (2001) reported that caring for others and caring environment are the primary cause of burnout syndrome. Individual and situational factors e.g.
emotional workload predisposes nurses for burnout. Given the amount of time, nurses spend and the depth of their physical and relational contact with patients implies a deep involvement, which in turn influences their life issue (Duquette, Kerouac, Sandhu and Beaudet, 1994; Duquette, et al., 1995; Constantini, Solano, Napoli and Bosco, 1997). Investigators reported that nurses’ work is psychologically demanding and engaging which depletes cognitive, emotional, and physical resources. The emotional workload of nurses becomes a source of too much stress, once the quality and intensity of their relationship established with recipients (Rousseau, 1995; Li Calzi, et al., 2006). Lee and Ashforth (1993) specified that emotional exhaustion plays a central role in burnout process. Burnout often starts as a feeling of fatigue, mental or emotional, which lasts increasingly longer. Above mentioned statements contribute directly to our understanding of higher level of emotional exhaustion in nurses compared to controls in the present study (Table 5.1).

Another finding of the present study (Table 5.1) indicates that nurses reported significantly higher depersonalization than their control counterparts. This means that nurses felt emotionally exhausted and overwhelmed as well as depersonalized more than their comparable controls. Emotional Exhaustion and Depersonalization is tentatively identified as the “core of burnout” by (Walkey and Green, 1992). Researchers have suggested depersonalization as a defense mechanism resorted to when the burnout process is relatively at an advanced stage (Cherniss, 1980; Garden, 1987; Shirom, 1989). Cherniss (1980) proposed that the first stage of burnout occurs when the worker is exposed to stress stemming from the job or the work environment. In the second stage, the individual shows physical fatigue, emotional exhaustion and anxiety, and in third stage, defensive coping patterns as cynicism toward recipients of services, withdrawal and emotional detachment. Several studies have offered some perspective of burnout development based on (Maslach and Jackson, 1981) conceptualizes of this phenomenon. Golembiewski, Munzenrider and Carter (1983) suggested that depersonalization was the initial stage of burnout, followed by substantial reduction in personal accomplishment. Emotional exhaustion would generally follow
heightening of these first two stages. However, Leiter and Maslach (1988) disagreed with the model and argued that service workers cope with emotional exhaustion by depersonalizing their relationships with others, which in turn undermines accomplishment. Further, they proposed a sequence of relationship among the MBI subscales such that emotional exhaustion arises first, in response to demanding environment, and demands of a job. Increased exhaustion in turn brings emotional distancing from service recipients as a way of coping with exhaustion. The exhaustion and impoverished relationships with service recipients in turn diminish the workers' sense of personal accomplishment however, did not follow depersonalization, but was depicted as a function of the work environment (e.g. workload, personal conflict, hassles). In the present study, however no difference emerged between nurses and controls on reduced personal accomplishment. This reveals a satisfying relationship with their job and good evaluation of their professional self. This means that the process of burnout has yet not reached on extreme level, but the situation needs to be monitored (Eisenstat and Felner, 1984).

Although there was no difference on reduced personal accomplishment but it is quite encouraging on the personal accomplishment front, the difference on other two dimensions that is emotional exhaustion and depersonalization cannot be overseen. Leiter (1993) purported that diminished sense of personal accomplishment component of burnout develops in parallel with emotional exhaustion components, as they arise as reactions to different aspects of work environments that pose difficulties for human service workers. Contrary to this, Friedman (1993) found that “emotional exhaustion” and “accomplishment” are simply two different and independent phenomenon as far as burnout is concerned.

The findings of the present study that nurses reported higher level of emotional exhaustion and depersonalization when compared to controls are consistent with the available literature. The research evidence cited above suggests that burnout, particularly its dimensions emotional exhaustion and depersonalization is implicit in nurses. The present study as well as studies in literature confirms the prevalence of two distinct features of burnout, which is emotional exhaustion and depersonalization in case of nurses. However, inconsistencies in findings related to burnout dimensions calls for further research.
6.2. Relationship of Job Stress (Severity and Frequency), Emotional Vital Signs (Trait-Anger, Modes of Anger Expression (AX/In, Ax/Out, Ax/Con), and Depression), Perceived Overall Support (Non-Organizational and Organizational) and Burnout (Emotional Exhaustion, Depersonalization and Reduced Personal Accomplishment) among Nurses and Controls

6.2.1. Relationship of Job Stress (Severity and Frequency) and Burnout (Emotional Exhaustion, Depersonalization and Reduced Personal Accomplishment) among Nurses and Controls

The result of the present study indicates that there is a positive and significant relationship between overall job stress and emotional exhaustion in case of nurses as well as controls. This means higher the experienced job stress among nurses and controls, higher will be their emotional exhaustion (see Table 5.2., Table 5.3).

Research evidence has shown that there is a strong relationship between job stress and emotional exhaustion component of burnout. Emotional exhaustion is reported to be a precursor of stress (Lee and Ashforth, 1996; McManus, Winder and Gordon, 2002). Blix, Cruise, Mitchell and Blix (1994) studied stress level among university faculty members and found that emotional exhaustion was the primary cause of high stress among them. The researchers have found that faculty members who experienced emotional exhaustion also experience higher job stress, increased health problems, lower productivity and were likely to consider changing jobs. In another study, Houkes, Janssen, De Jonge and Nijhuis (2001) reported that high workload, together with a low social support, has been found to result in high levels of emotional exhaustion, ultimately burnout. McManus, Winder and Gordon (2002) stated that there was a reciprocal causation between emotional exhaustion and stress. They found a largest causal effects in the model showed a causal cycle in which high levels of emotional exhaustion caused stress and high levels of stress caused emotional exhaustion. More recently, Esteva, Larraz and Jiménez (2006) assessed burnout among physicians and its relationship with stress. It was revealed that job stress was related to higher emotional exhaustion. Schaufeli and Enzmann (1998) reviewed studies and found that job demands such as higher workload and time pressure were strongly related to
emotional exhaustion in most of the studies but unrelated to personal accomplishment component of burnout. Bussing and Schmitt (1998) examined the role of work stress and workload in the development of burnout among nurses and found that work stress was correlated with emotional exhaustion. Hendrix, Acevedo and Hebert (2000) found that higher perceived stress scores were related to higher emotional exhaustion. Visser, Smets, Oort and de Haes (2003) stated that when stress was high, the risk for emotional exhaustion the central aspect of burnout increased considerably. In another study, it was reported that emotional exhaustion scores were more strongly associated with stressful occupational experiences (Mills and Huebner, 1998).

In view of the above findings of the researches, it is clear that job stress is strongly associated with emotional exhaustion considered as a core dimension of burnout.

Another finding of the study (Table 5.2; Table 5.3) revealed a positive and significant relationship between severity and frequency of job stress events and emotional exhaustion in case of nurses and as well controls. This suggests that greater the perceived severity and frequency of job stress events in nurses and controls, greater will be the experience of being emotionally drained out. It was pointed out by McManus (2005) that there is a reciprocal causation between emotional exhaustion and stress. A causal cycle denotes that a high level of stress caused emotional exhaustion and a high level of emotional exhaustion caused stress. Taken together the findings of the earlier studies are consistent with present one.

Literature has not specifically highlighted the relationship between job stress, considering severity of job stress events and frequency of occurrence of stressors and emotional exhaustion. Despite this, it is evident from literature that work stressors and emotional exhaustion are strongly and positively correlated to each other (Gaines and Jermier, 1983; Leiter and Maslach, 1988; Cebria, Sobreques, Rodriguez and Segura, 2003). Three studies, reported by Schaufeli and Enzmann (1998), confirmed the special importance of stressors in relation to burnout. They stated that when an individual is confronted with stressors, the first stage characterized by him/her is an attempt to mobilize certain resources (personal
protectors) to meet with the demand. If however, the stressors persists and becomes prolonged or too severe, the individual finds it difficult to resist the demand, and finally when the individual is unable to cope anymore, the stage of exhaustion (burnout) set in (Philip, 2004). Jenkins and Elliot (2004) studied nurses and found that variety of job stressors were positively correlated with emotional exhaustion. Several other investigators have found that an increase in job stressors, caused by emotional exhaustion, may in turn contribute to even more exhaustion (Zapf, Dormann and Frese, 1996; De Jonge, Dormann, Janssen, Dollard, Landeweerd and Nijhuis, 2001). More Recently, Barnard, Street and Love (2006) reported a significant positive correlation between stressors and emotional exhaustion. In another study on police women, Thompson, Kirk and Brown (2005) found that those police women who reported higher levels of work stressors also reported higher levels of emotional exhaustion.

Most of the earlier researchers linked burnout with job specific stressors (e.g. in critical care nurses). Topf (1989) reported that stress due to interpersonal conflicts, ethical problems, dealing with death and dying etc. has been found to co-exist with burnout. General job stressors such as role conflict, role overload, under participation, intrinsic impoverishment etc. also lead to burnout. Several studies have shown that most common sources of work stress (job and role characteristics, organizational characteristics, and personal characteristics) can contribute to one or more of the feelings associated with burnout, with emotional exhaustion being the most prevalent feeling that is experienced (Etzion, Eden and Lapidot, 1998; Greenglass, 2001). Zohar (1997) stated that emotional exhaustion occurs when person’s life resources are depleted by stressful demands. Leiter (1991) argued that emotional exhaustion aspect of burnout is most responsive to the nature and intensity of stressors in the work environment. In a study on teachers, it was found that emotional exhaustion was strongly associated with role conflict (Jackson, Schwab and Schuler, 1986). Van Dierendonck, Schaufeli and Buunk (2001) found that job stressors, such as inequities in relationships, affect the emotional exhaustion component of burnout most strongly. Demerouti, Bakker, Nachreiner and Schaufeli (2001) suggested that emotional exhaustion closely resembles traditional stress reactions that are studied in occupational stress research.
such as fatigue, job related depression, psychosomatic complaints and anxiety. Given these observations it is reasonable to view emotional exhaustion as a type of stress that results from workplace stressors. Stordeur, D’Hoore and Vandenberghe (2001) reported that work stressors as a whole were found to explain 22 percent of variance in emotional exhaustion. Leiter and Maslach (1988) suggested that emotional exhaustion component represents the basic individual stress dimension of burnout. Earlier, Pines and Kafry (1978) reported that stress filled situations play the most important role in the burnout process. High and unrealistic expectations can create intrinsic demand stress and in turn lead to emotional exhaustion. Lee and Ashforth (1996) stated that demanding work stressors such as increasing workloads and greater levels of work pressure are positively related to rates of emotional exhaustion that is burnout. Researchers have suggested that nursing profession is stressful and demanding. Daily demands of their job increased the level of stress, which in turn leads to burnout among nurses (Schmitz, et al., 2000; Glazer, 2005; Kennedy, 2005). Similarly, Zohar (1997) reported that emotional exhaustion was an outcome of daily demands in nurses. Likewise, De Jonge, Janssen and Landeweerd (1994) revealed that feelings of emotional exhaustion increased when the amount of workload increased among nurses.

Another finding of the study revealed that there was a positive and significant relationship between overall job stress and depersonalization component of burnout among nurses as well as controls (see Table 5.2; Table 5.3). This indicates that more the nurses and controls felt job stress at work more they develop a detached, cynical and callous attitude towards others at work and vice-versa.

There is a plenty of research in which causal relationship between job stress and burnout syndrome (emotional exhaustion, depersonalization, reduced personal accomplishment) is highly emphasized (Maslach and Jackson, 1981; 1986; Burke and Greenglass, 1993; Lazarus, 1995; Sciacchitano, Goldstein and Diplacido, 2001; Maslach, 2003; Kokkinos, 2007). Several researches have reported that there is a strong positive relationship between job stress and depersonalization (Hendrix, Acevedo and Hebert, 2000; Halbesleben and Buckley, 2004; Elit, Trim, Mand-Bains, Sussman and Grunfeld, 2004; Barnard, Street and
Love, 2006). In a study on employees working in airline industry, Touringy, Baba and Lituchy (2005) revealed that perceived stress leads to emotional exhaustion, which triggers depersonalization and a diminished sense of personal accomplishment. The results confirmed the sequence of occupational stress, emotional exhaustion and depersonalization which indicated that occupational stress precipitates emotional exhaustion and which in turn leads to burnout. Liivia (2006) reported that stress was positively related to burnout, while having especially, stress link to emotional exhaustion and depersonalization dimension of burnout. Similarly, Esteva, Larraz and Jiménez (2006) found that job stress was related to higher levels of emotional exhaustion and depersonalization. Contrary finding was reported by McManus, Winder and Gordon (2002) in a longitudinal study on doctors. They found a negative relationship between depersonalization and stress, more controversial effects was found which indicated that doctors stress level was decreased, when they treat their patients as objects rather than subject. Depersonalization while being bad for patients could nevertheless be seen as a response that for the doctor is adaptive, reducing the immediate likelihood of stress responses.

The findings of the present study revealed a positive and significant association between job stress and depersonalization. This finding is consistent with data for a variety of service professions, including social workers, physicians, psychologists, police officers, lawyers and counselors (Capel, 1986; Burke and Greenglass, 1989; Taylor, 1992). Researchers examining burnout (emotional exhaustion, depersonalization, reduced personal accomplishment) have also found a link between the construct of burnout and perceived stress (Smith, 1986; Kelley and Gill, 1993; Raedeke, 2004). Burnout is usually considered to be the result of prolonged stress and unrelieved stress (Farber, 1983; Veninga and Spradley, 1981; Reilly, 1994; Wolfgang, 1991). Pines (1993) stated that stress may happen to anyone in a number of different situations, whereas burnout is a specific experience that results when people work over longer periods of time in extremely demanding situations. Researchers argued that excessive environmental demands that might be considered as stressful, cause the development of inadequate emotional responses, that can lead to the development of burnout (West, 2001; Fagin, Carson, Leary, De
Several researchers have reported a significant relationship between stress and burnout (Henschen, 1982; Capel, 1986; Golembiewski and Munzenrider, 1988; Kelley and Gill, 1993; Chwalisz and Kisler, 1995). As it was suggested by Maslach and Jackson (1986) burnout as a successively developing syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment, is a prolonged response to chronic emotional and interpersonal stressors on the job. The relationship between job stress and burnout is well established. The increase in job stress thus contributes to the development of burnout and the prominence of the concept of literature (Pines and Aronson, 1988; Maslach, Schaufeli and Leiter, 2001). In a study on police women, Thompson, Kirk and Brown (2005) found that individuals with high levels of emotional exhaustion, depersonalization and personal accomplishment experienced stress, caused by the content of work, work relationships and the environment. Individuals with burnout had higher levels of stress. It was revealed that police officers with high stress levels had significantly higher emotional exhaustion and depersonalization.

In the present study it was revealed (Table 5.2; Table, 5.3) that overall job stress was significantly and positively related to all the three components of burnout that is emotional exhaustion, depersonalization and personal accomplishment. However, on reduced personal accomplishment no significant relationship observed in case of controls. There is considerable amount of research on relationship between nursing stress and burnout. Researches indicated that stress and burnout correlated positively among nurses (Wright, Blache, Ralph and Luterman, 1993; DePew, Gordon, Yoder and Goodwin, 1999; Schmitz, Neumann and Oppermann, 2000; Mc Vicar, 2003; Kennedy, 2005). Ledgister (2003) stated that it is generally speculated that the environmental pressure of practicing in a stressful and constantly changing health care environment may increase the problems of job burnout among nurses. Researchers suggested that nursing is an endemically stressful profession. Nurses are deemed to be at higher risk of experiencing burnout than some other helping professions because the implicit relationship of job stress to burnout (Crickmore, 1987; Duquette, Kerouac, Sandhu and Beaudet, 1994). Although majority of the studies
indicated stress-burnout relationship among nurses (Bamber, 1991; Lewis, Becketell, Bonner, Campbell, Cooper and Hunt, 1992; Bennett and Kelaher, 1994; Duffy and Jackson, 1996; Admi, 1997; Melchior, Bours, Schmidtz and Wittich, 1997; Steenkamp and Vander Merwe, 1998; Payne, 2001). However, very few researches explored the specific causes and inter-relationship between stress and burnout. These studies have yielded inconsistent results. Although many studies demonstrate a strong correlation between high levels of stress in work environment and increased incidence and degree of burnout among nurses (Schmitz, Neumann and Oppermann, 2000), others produce evidence showing there is no correlation (Chiriboga and Bailey, 1986). Still others have even shown that nurses working in high stress are less burned out than their counterparts working in those perceived as low stress environments (Edwards, et al., 2000; Buunk, Ybema, Vander Zee, Schaufeli and Gibbons, 2001). Finch and Krantz (1991) noted that in most stressful settings show less evidence of burnout associated with job stress. A similar pattern of low burnout for allied high stress health professionals also exists. A study of medical specialists conducted by Visser, Smets, Oort and de Haes (2003) found that the respondents were remarkably satisfied with their work, despite high levels of work stress with mean burnout scores that were even somewhat below than average for Dutch healthcare professionals. The evidence suggests that there is a relationship between stress and burnout. A variety of relationship has been identified between stress and burnout in nursing. These include low stress/high burnout, high burnout/high stress, low stress/low burnout, and unexpected high stress/low burnout relationship given the implied causal relationship between high stress and burnout and reports of increased stress in health care environments. Although definitive conclusions cannot be drawn, the evidence suggests that there is a relationship between job stress and undesirable work related and personal outcomes, particularly burnout. What remain unclear; however are the specific aetiology, nature and dynamics of the stress-burnout relationship (Hall, 2005).

In view of the above mentioned discussion it is clear that stress and burnout are associated with each other, besides its direction of the findings, although there are inconsistencies in existing literature which makes this task difficult. A possible explanation for these inconsistencies in reported findings
regarding stress-burnout relationship may be due to the variation in sampling of job stressors and method of assessment. Most questionnaires which measures occupational stressors have been developed to measure stressors across occupational groups (Karasek and Theorell, 1990; Kasl, 1996) and a major disadvantage is that generic measures neglect the more occupation-specific stressors are the crucial stressors which could explain any differences in, for instance, burnout levels between various occupational groups. Bacharach and Bamberger (1992) demonstrated that occupation-specific role stressors models have a greater degree of model fit and specificity, and are therefore more plausible. On the basis of their research with nurses, they concluded that the examination of specific climate dimensions and stressors may prove to be more informative and may result in a more meaningful and useful model of the antecedents and consequences of occupational stress. Other investigators have also stressed the advantages of use of occupation-specific measures and the development of interventions targeted at these specific stressors especially in case of nursing profession (Hemingway and Smith, 1999). Yet, the finding of the present study is consistent with other studies in indicating stress-burnout association. However, keeping in view the inconsistencies in findings, researchers should carry out researches in different settings considering other related factors such as variation in sampling of job stressors, method of assessment, specific climate dimensions and occupation-specific role stressors and work stressors to have a better understanding of stress-burnout relationship.

Further, correlational result (Table 5.2) also reveals a positive and significant relationship between severity of job stress events and depersonalization among nurses. In contrast no positive relationship emerged in case of controls (Table 5.3). This indicates greater the perceived severity of job stress events greater will be the feelings of depersonalization among nurses and vice-versa.

Likewise, there was a positive and significant relationship between frequency of occurrence of job stress events and depersonalization in nurses and controls (Table 5.2; Table 5.3). This indicates that greater the severity of job stress events as well as frequency of occurrence of stressors among nurses and controls
greater will be the experience of negative and callous attitude towards recipients or others at work and vice-versa.

There is no direct study on severity and frequency of job stress events and depersonalization. Although there is ample evidence in literature indicating the relationship of work related stressors with burnout (a syndrome of emotional exhaustion, depersonalization and personal accomplishment), researchers have consistently suggested that burnout phenomenon originates from potential stressors, which lead to actual stressors affecting the individual’s short and long term psychological and physiological responses (Kyriacou and Sutcliffe, 1978; Brenner and Bartell, 1984; Farber, 1984; Burke and Greenglass, 1993). Investigators argued that perceived stress impacts an individual’s development of burnout (Cherniss, 1980; Pines, 1993). Smith (1986) incorporated it in a model of burnout that proposes an individual’s continual appraisal of stressors as threatening, which in turn results in the experience of burnout. Likewise, Kelley, Eklund and Ritter-Taylor (1999) proposed that development of burnout is affected by personal and situational variables that impact an individual’s perception of stressors. It has also been suggested that work stressors may induce burnout among nurses (Beaver, Sharp and Cotsonis, 1986; Firth, McKewon, McIntee and Britton, 1987; Lewis, Becket, Bonner, Campbell, Cooper and Hunt, 1992; Payne, 2001; Schaufeli and Enzmann, 1998; Jenkins and Elliot, 2004; Spies, 2005), arguing that manifestations of burnout are related to important work stressors sustained over time. Burnout appears, above and all to be an adverse work stress reaction with psychological, psycho-physiological and behavioral components (Cherniss, 1980; Edelwich and Brodsky, 1980; Freudenberger, 1980; Jones, 1982; McConnell, 1982; Pines and Aronson, 1988). Cordes and Dougherty (1993) and Handy (1988) revealed that role stressors such as long hours were associated with burnout. Similar findings were reported by (Schaufeli, Bakker, Hoogduin and Schaap, 2001). Heim (1991) posited that nurses who cannot cope with stressors at work and in private life may experience anxiety and burnout. In the study of Gozum (1997) it was found that stressors in the work environment increase job burnout. Duquette, Kerouac, Sandhu, Ducharme and Saulnier (1995) reported that geriatric nurses who perceived more work stressors were found to be more burned out. Maslach (1982)
pointed out that work stressors appear to be important determinants of burnout. In a study on nurses by Jenkins and Elliot (2004) it was revealed that work stressors were positively related with high levels of depersonalization. It was concluded that burnout develops in response to job related stressors. Etzion, Eden and Lapidot (1998) stated that the presence of chronic job stressors can lead to burnout. Too many stressful situations and too much work stress often results in burnout (Kushnir, Rabin and Azulai, 1997). Simons and Barone (1994) reported that work stressors accounted for significant variance in emotional exhaustion and depersonalization components of burnout. In a study on nurses, Payne (2001) found that stressors made the greatest contribution to burnout. Maddi and Kobasa (1984) propose that as stress generating events mount up (work stressors), symptom of stress (burnout) increase. For an individual, a repetitive stress can represent a menace or a tension, which may manifest physiological and psychological symptoms. An individual who frequently finds himself in this situation may experience decreasing resistance to stress which may lead to physiological or psychological stress that is burnout.

The finding of the present study that nurses and controls when frequently encountered job stressors in their workplace experience resistance to stress events which in turn, lead them to experience burnout (depersonalization) and vice-versa is consistent with the above mentioned researches and adds further support to the literature documenting the stress-burnout relationship.

Another finding of the present study revealed a positive and significant relationship between overall job stress and reduced personal accomplishment in nurses (Table 5.2). However, no significant relationship observed in case of controls (Table 5.3). This indicates that greater the job stress greater will be the nurses' tendency to evaluate themselves negatively particularly with their work and clients and vice-versa.

There are limited studies in literature which specifically mentioned the correlation between job stress and reduced personal accomplishment, a third component of burnout syndrome (Kelley and Gill, 1993; Hendrix, Acevedo and Hebert, 2000; Akhtar, Lee and Lai, 2006). Most of the studies in literature cited job stress with total burnout and reported a positive correlation between job stress and
overall burnout (Fender, 1989; Thompson, Page and Cooper, 1993; Eastburg, et al., 1994; Raedeke, 2004). Recently, Dai, Yu, Wu, Xu, Shen, Wang and Fu (2006) found in their study on employees that job stress affected differently in 3 dimensions of job burnout. Hendrix, Cantrell and Steel (1988) found in study that job stress correlated positively with burnout. In another study on veterinarians, Welsch (1998) reported a positive association between job stress and burnout in male veterinarian. Wallace and Brinkerhoff (1991) stated that work related stress often associated with burnout. In a study on dentists, Osborne and Croucher (1994) argued that dentists suffer a high level of job stress which may produce burnout. Meams and Cain (2003) found a significant correlation between job stress and all aspects of burnout. Pierce and Molloy (1990) reported that role stress was significantly correlated with all the dimensions of burnout. Rowe (1997) revealed a significant relationship between burnout and stress. However, few studies have reported relationship between all the three dimensions of burnout separately. Fusilier and Manning (2005) found that stress was positively related to reduce personal accomplishment. Similarly, Skiles and Hinson (1989) reported that perceived job stress was a significant predictor of sense of personal accomplishment. Haddad (1998) studied counselors and found a positive relationship between personal accomplishment and stress. Hendrix, Acevedo and Hebert (2000) revealed that higher perceived stress scores were related to higher emotional exhaustion and depersonalization and lower levels of personal accomplishment. Similar findings were reported by, Barrick (1989) that higher the stress levels, higher the emotional exhaustion and depersonalization levels for the supervisors. The personal accomplishment level was reduced as stress increased. Contrary, finding was reported by Kelley and Gill (1993) that perceived stress was positively associated with emotional exhaustion and depersonalization, but was negatively associated with sense of personal accomplishment among coaches. All the studies supporting the finding of present study indicate that job stress and reduced personal accomplishment is significantly correlated.

Maslach (2003) stated that burnout is often studied as a response to stress at work in which emotional exhaustion, depersonalization and reduced personal accomplishment result from a variety of work demands. As the work
environment continues to affect the levels of job stress, nurses are more prone to burnout. This is consistent with the findings of the present study in case of nurses, while nurses scored higher on stress as well as on burnout (emotional exhaustion and depersonalization) (Table 5.1) which pointed out clearly that due to high levels of job stress, nurses experienced high level of burnout or vice-versa. Researchers have shown that stressful conditions prevalent in healthcare settings increase burnout among nurses (Topf and Dillon, 1988; Schmitz, Neumann and Oppermann 2000; Petrova, Todorova and Mateva, 2005). Earlier, Harrison (1983) pointed out that nurse-patient relationship is an imbalanced relationship; the operator gives, while the patient receives. Generally this kind of relation is stress enduring, and is determined by the level of stress, the subjective perception of stress factor and the subjective ability to cope with stress. If the subject is continuously exposed to stress factors it is probable that typical burnout symptom will begin to appear which is considered, initially a maladaptive reaction and subsequently a defensive reaction to stress. Recently, in a study on nurses, Zeytinoglu, Denton, Davies, Bauman, Blythe and Higgins (2005) revealed that there was an association between nurses' symptoms of stress and burnout. Similarly, Mallett, Price, Jurs and Slenker (1991) revealed that burnout and job stress was positively correlated among nurses. In another study on nurses, it was found that subjective stress in nurses correlated with high levels of burnout (Jaracz, Görna and Konieczna, 2005). Schaufeli and Enzmann (1998) reported that there was a high correlation between stress and burnout.

Another finding of the present study revealed a positive and significant relationship between severity of job stress events and reduced personal accomplishment in nurses and controls (see Table 5.2, Table 5.3). This depicts that greater the severity of job stress events among nurses and controls, greater will be the decline in their feelings of competence with their achievement on work and vice-versa.

Likewise, a positive and significant relationship emerged between frequency of occurrence of stressor events and reduced personal accomplishment among nurses (Table 5.2) whereas no significant relationship emerged in case of
controls (Table 5.3). This further reveals that job stress severity and frequency influence the level of reduced personal accomplishment.

There is hardly any study in literature which has specifically focused on the relationship between severity and frequency of job stress events and reduced personal accomplishment. However, few studies in literature demonstrated this relationship only indirectly. Much research has focused on the relationship between work stressors and overall burnout. Maslach and Jackson (1996) indicate that an accumulation of variety of stressors, including individual, interpersonal and organizational, drives the burnout process. Lee and Ashforth (1996) found that work stressors such as workload contributes to burnout. Similarly, Schaufeli and Enzmann (1998) reported that job related stresses, such as time pressure, role conflicts, and workload correlated with burnout. Other investigators have also suggested that working in emotionally charged environments on a daily basis could become highly stressful. Further, they reported that major occupational sources of stress that affect nurses are conflict with colleagues and management, difficult workload, inadequate staffing and resources, emotional demands of patients and their families, and the experience of death and dying of patients, all of which may lead to burnout among nurses (Spencer, 1994; Corley, 1995; Sawatzky, 1996). In a study on teachers, Russell, Altamaier and Van Velzen (1987) revealed that job related stressful events were predictive of burnout. Vander Ploeg, Dorresteijn and Kleber (2003) observed an association between chronic job stressors and burnout. Mills and Huebner (1998) in a study on school psychologists found that increasing occupational stressors leads to burnout among psychologists. The relation between work stressors and burnout was found to be reciprocal. Investigators stated that stressful occupational experience predisposed individuals to experience burnout and high levels of burnout predisposed individuals to experience additional occupational stress. However, when initial burnout was controlled, work stressors did not predict subsequent burnout. Sonnentag, Brodbeck, Heinbokef and Stolte (1994) reported that stressors were positively related to all the burnout components. Grundy (2000) reported that work stressors were associated with all three aspects of burnout. Heim (1991) stated that nurse’s lack of skills in coping with private life stressors and work, experience burnout. Likewise, Demir, Ulusoy and Ulusoy
(2003) found that nurses experienced burnout due to inability to cope with stressors at work and in personal life. Novak and Chappell (1994) found that stressors influence feelings of burnout and best explained the feelings of reduced personal accomplishment. Rowe (1997) found a significant relationship between burnout and stress. Wykes, Stevens and Everitt (1997) reported that high levels of burnout among community care staff significantly correlated with work stressors. Plante and Bouchard (1995) found a significant relationship between job stress and burnout among nurses. Schaufeli and Janczur (1994) found that subjective work stressors contributed most strongly to burnout in Polish as well as Dutch nurses.

Taken together it is evident from the findings of the studies that stress and burnout is highly associated with each other in nursing profession (Oehler and Davidson, 1992; McAbee, 1999; Jaracz, Górna and Konieczna, 2005; Kennedy, 2005). However, few studies focused on the severity and frequency of occurrence of job stress events in relation to burnout (emotional exhaustion, depersonalization, reduced personal accomplishment) in India as well as in West.

6.2.2. Relationship of Trait Anger, Modes of Anger Expression (Ax/In, Ax/Out, Ax/Con) and Burnout (Emotional Exhaustion, Depersonalization and Reduced Personal Accomplishment) among Nurses and Controls

The results of this study indicated a positive and significant relationship between trait anger and emotional exhaustion in nurses (Table 5.2), whereas no significant relationship emerged in case of controls (Table 5.3). This indicates that higher the tendency of nurses to perceive a wide range of situations as anger provoking, higher will be the feelings of emotional exhaustion and vice-versa.

There is hardly any study which has directly dealt with the relationship of trait anger and emotional exhaustion among nurses as well as other professionals. However, one study indicated that Type-A disposition (having anger as an important component) positively linked with emotional exhaustion component of burnout (Hallsten, 1993). The possible explanation for the relationship between anger and emotional exhaustion might be one suggested by Garden (1987). The author opined that in understanding burnout, one should distinguish between two personality types such as “thinking” and “feeling” types.
She further suggested that feelings types showed greater association with energy depletion than thinking types, and that feeling types were more likely to employ certain defense mechanism such as distancing and hostility toward clients. Similarly, other researchers have suggested that burnout syndrome (emotional exhaustion, depersonalization, personal accomplishment) generates negative emotional response (e.g. anxiety, anger, fear, depression, and alienation) accompanied by cognitive physiological and behavioral changes resulting in determinants of mental health or psychological well-being (Belcastro and Gold, 1984; Daniel and Schuller, 2000). Recently, Fiksenbaum, Marjanovic, Greenglass and Coffey (2006) stated that emotional exhaustion was positively related to anger. Rose, Horne, Rose and Hastings (2004) reported that there was a positive correlation between negative emotional reactions or feelings such as anger, anxiety, dissatisfaction and guilt and emotional exhaustion component of burnout. In a study on teachers, Saini, Yadav and Mal (1997) revealed that teachers with high negative affectivity reported more emotional exhaustion than their low negative affectivity counterparts.

Another finding of the present study revealed that in case of nurses as well as controls a positive and significant relationship emerged between anger-in mode of anger expression and emotional exhaustion (see Table 5.2., Table 5.3). This denotes that higher the anger suppression among nurses and controls, higher will be the feelings of being emotionally drained or exhausted and vice-versa. Rafaeli and Sutton (1989) suggested that frequent interactions with people may be tiring, in itself, given its implications for workload, but such interaction can also involve the need for employees to regulate their emotional expression in mandated ways. Hochschild (1983) stated that in the emotional labor literature, the focus is customer service, where interactions are less spontaneously “emotional”, yet high emotional control is needed to maintain positive relations with customers across time and situations. However, recent research in both burnout and emotional labor, literature has shown mixed or non-supportive results for the frequency of interaction and the display rules of the job (Cordes, Dougherty and Blum, 1997; Morris and Feldman, 1997; Schaubroeck and Jones, 2000). The perception that the job is required high levels of hiding negative emotions such as anger and fear was
the only factor that was significantly related to emotional exhaustion. Similarly, other researchers have reported that surface acting that is to modify and control emotional expressions, was significantly related to emotional exhaustion (Brotheridge and Grandey, 2002). The high relationship between emotional exhaustion and anger-in among nurses as well as controls in the present study is well explained in the emotional labor context. In the present study, both nurses and controls worked in hospital setup where the nurses and other staff requires high emotional investment in terms of display rules which remove emotional autonomy from the employee (Ekman and Friesen, 1975; Rafaeli and Sutton, 1989; 1990; Wharton, 1993). These display rules refer to the degree to which showing and hiding emotions is seen as an expected part of employee performance (Wharton and Erickson, 1995). In the similar line, Best, Downey and Jones (1997) revealed that the requirement to hide negative emotions was positively associated with burnout.

Furthermore, another finding of the present study (Table 5.2) revealed a positive and significant correlation between anger-out and emotional exhaustion in case of nurses, whereas an inverse relationship was observed in case of controls (Table 5.3). This indicates that greater the nurses express their angry feelings towards others at workplace greater will be the draining of emotional energy and vice-versa. However, findings of the controls indicated that higher the expression of anger towards others lower will be the feelings of exhaustion from their work. Different findings among controls may be because of different nature of work. While nurses perform duties that involve high levels of emotional and interpersonal demands and also highest standard of patient care. Intensity of these demands may also put a heavy emotional burden which makes them feel depleting of their emotional resources (Le Blanc, Bakker, Peeters, Van Heesch and Schaufeli, 2001). In contrast controls’ job mainly involves impersonal relationship with patients and/or their attendants.

The finding of the present study in case of nurses is consistent with the earlier research. A positive relationship between expression of anger (ax/out) and burnout (emotional exhaustion, depersonalization and reduced personal accomplishment) is reported in a few studies (Mytych, 1981; Potter, 1998). More
recently, Muscatello, Bruno, Carroccio, Cedro, La Torre, Di Rosa, Zoccali, Aragona, La Torre, Mattei, Angelone and Di Orio (2006) revealed in their study on oncology and ophthalmology staff that increasing levels of burnout was associated with higher anger expression towards the environment and loss of anger control. They concluded that anger as a response to frustration appears to be a feature constantly associated with the clinical expression of burnout and it should not be underestimated. Similarly, Zoccali, Campolo, Carroccio, Cedro, Muscatello, Pondolfo, Di Rosa and Meduri (1999) found in their study on human service professionals that emotional exhaustion and anger out was significantly and positively correlated to each other. They have also suggested that anger could cover an important role in dynamics of the burnout, which in turn, contribute to maintain and amplify the burnout. In another study on law enforcement officers, Riddle (1999) revealed that there was a significant and positive correlation between aggression and burnout. It has been shown in a research study, that negative emotions, characteristics of burnout usually affect interpersonal relationships. Feeling emotionally drained workers, interact with people more differently both in job and at home. When inevitable conflicts arise, burnout victim tends to overreact with emotion outbursts or intense hostility, making communication with others increasingly difficult (Potter, 1998).

Further, the present study indicated that there was a positive and significant relationship between trait anger and depersonalization in case of nurses (Table 5.2), while no relationship was observed in case of controls (Table 5.3). In literature there is no direct study considering the relationship between trait anger and depersonalization component of burnout. Some studies revealed that increasing levels of anger are one of the symptoms of burnout (UN: International Labour Organization, 1993). Morgan, Cho, Hazlett, Coric and Morgan (2002) reported that burnout was experienced by military personnel when negative feelings of anger as well as frustration and sense of being without support is experienced for extended period of time. Maslach (2005) stated that chronic and unresolved conflicts with others on the job produces negative feelings (anger, frustration and hostility) and reduce the likelihood of support, hence increases the levels of burnout. Investigators have also reported that Type-A disposition (having anger as an
important component) correlated with burnout (Pradhan and Mishra, 1995). In a study on nurses, Lavanaço (1997) revealed that for nurses Type-A scores were correlated positively with burnout scores. Researches on Type-A personality also indicates that this aggressive, intense and moody class of individuals are prone to burnout since they are more likely to be angered and stressed when they perceive their efforts to be unsuccessful than their Type-B counterparts (Glass, 1977). Potter (1998) suggested that people caught in burnout cycle usually experience negative emotions more often until they become chronic. In the worst cases people complain of a kind of emotional fatigue or depletion, 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, than depression, and in extreme cases despair occur. Keller (1990) found that behavioural changes such as inflexible thinking, negative attitudes, increased frustration and quickness to anger were symptoms of burnout among nurses. Other researchers have reported that angry nurses experienced low to moderate levels of burnout at their workplaces (Mytych, 1981; Thomas, Riegel, Gross and Andrea, 1992). Investigators have also reported an association between negative emotion that is negative affectivity and burnout (Burke, Brief and George, 1993; Houkes, Janssen, De Jonge and Bakker, 2003). In particular, Iverson, Olekalns and Erwin (1998) and Zellars, Perrewé and Hochwarter (1999) found that trait negative affectivity was positively related to burnout in samples of healthcare employees. Thoresen, Kaplan, Barsky, Warren and de Chermont (2003) in a meta-analytic review of affect on job attitudes found robust support for the positive influence of trait negative affectivity on burnout.

Another finding revealed that anger-in and depersonalization was significantly related to each other in nurses and controls (see Table 5.2., Table 5.3). This shows that higher the tendency of nurses and controls to suppress their angry feelings, higher will be the display of detached and callous attitude towards others and vice-versa. There is hardly any study which directly dealt with anger-in mode of anger expression and depersonalization component of burnout. However, few researchers have focused on suppression of negative emotions (anger, frustration etc.) and depersonalization dimension and reported a positive correlation between negative emotions and depersonalization (Ashforth and Humphrey, 1993; Grandey,
2000; Brotheridge, 2002). Earlier, Hochschild (1983) argued that acting inauthentic over time may result in feeling detached not only from one's true feelings but also from other people's feelings, suggesting a relationship with the depersonalization dimension of burnout. It was reported that when an employee at work hide their negative emotions (such as anger), that could lead to emotional exhaustion and depersonalization. In another study by Brotheridge and Grandey (2002) it was revealed that suppression of negative emotions significantly and positively correlated with depersonalization component of burnout.

Likewise, another finding of the present study (Table 5.2) indicates that anger-out and depersonalization were significantly and positively related to each other among nurses, whereas no significant relationship was observed in case of controls (Table 5.3). This indicates that greater the tendency of nurses to express their angry feelings, greater will be the cynical and callous attitude towards clients or patients. In literature no study has specifically focused on modes of anger expression in relationship with burnout dimensions individually. However, there are few studies reported the relationship between anger expression and overall burnout (Muscatello, et al., 2006; Zoccali, et al., 1999). In an investigation on nurses, Droppleman and Thomas (1996) found anger among nursing profession to be associated with interpersonal alienation and ultimately burnout. Diong and Bishop (1999) reported that higher levels of anger expression were associated with higher levels of stress and it may result in chronic negative emotions such as anger, anxiety and depression, which in turn lead to burnout (Heartmath, 2002). Muscatello, Bruno, Carroccio, Cedro, La Torre, Di Rosa, Zoccali, Aragona, La Torre, Mattei, Angelone and Di Orio (2006) found that a higher level of burnout was correlated with higher anger expression towards the environment. Earlier, Firth, McKewon, McIntee and Britton (1987) in a study on nurses reported that nursing staff prone to direct anger outwardly was more likely to experience depersonalization or negative feelings towards patients or others. Researchers have found that burnout prone individuals get easily angered and frustrated by an obstacle in his or her path and may have difficulty controlling any hostile impulses. Maslach (1982) stated that helping professionals commonly experience negative emotions such as anger, frustration, and irritation in their workplace. Those who
cannot deal constructively with these emotions often misdirect their hostility at others in search of someone to blame, this becomes a part of the depersonalization process which is a core component of burnout. Mitchell and Hastings (2001) reported that emotional reactions to aggressive behaviour predicted burnout. Likewise, Evers, Tomic and Brouwers (2002) observed that aggression behaviour was found to have a significant relationship with depersonalization among staff caring for residents living in homes for the elderly.

Further, another finding of the present study revealed that there was a positive and significant relationship between trait anger and reduced personal accomplishment among nurses (Table 5.2). This indicates that higher the disposition to experience angry feelings as a personality trait, higher will be the sense of reduced personal accomplishment at work and vice-versa. However, an inverse relationship emerged in case of controls (Table 5.3). This indicated that greater the tendency of nurses to experience negative feelings, lower will be the feelings of reduced personal accomplishment and vice-versa.

There is hardly any study which dealt with relationship of trait anger and reduced personal accomplishment among nurses as well as other professionals. Edelwich and Brodsky (1980) in their model of burnout cited following stages in the burnout process: enthusiasm (high hope, high energy, unrealistic expectations), stagnation (still doing the job, but putting greater emphasis on ones personal needs), frustration (feeling ineffective, resenting others, and beginning to experience emotional, physical and behavioural problems), and apathy (doing the minimum work required, avoiding challenges). Later, Farber (1991) explained the general process of burnout as enthusiasm and dedication giving way to frustration and anger in responses to personal, work related and societal stressors that in turn engender a sense of inconsequentiality. There is no study that directly investigated the association between reduced personal accomplishment and trait anger. As discussed in a preceding section there are only few studies, which have shown that Type-A disposition (having anger as an important component) positively correlated with burnout (emotional exhaustion, depersonalization and reduced personal accomplishment) (Pradhan and Misra, 1996; Lavanco, 1997). More recently, in an investigation, Lakin and Leon (2007) stated that intense negative emotions of front
line officers may lead them to become self-critical of their work, causing a feeling of decreased sense of personal accomplishment. Farmer (1988) reported that anger of correctional workers found to account for a large percentage of burnout. Ramarajan and Barsade (2006) pointed out that the presence of negative affectivity that is “someone’s propensity to be high energy in their negative emotions, such as anger and frustration” predicted burnout.

The other possible explanation for positive relationship between negative emotion of anger (T-Anger) and reduced personal accomplishment may be because of feelings of inequity in rewards. The nurses, in the present study, worked in state-owned government hospitals where channels of promotion and incentives are not based on performance but length of service as the nature of work of these nurses requires high emotional investment, they tend to be more sensitive towards the reward they receive out of their investments (see, Cordes and Dougherty, 1993; Schaufeli and Buunk, 1996). Other group of theorists has focused on equity theory, which in a way has some relation to reduce personal accomplishment. Equity theorists have argued that feeling deprived as well as feeling advantage is accompanied by negative feelings (Buunk, 1995). Later, Van Dierendonck, Schaufeli and Buunk (1998) suggested that perceived organizational inequity has also been linked to professional burnout. They further argued that because human service professionals often makes high emotional investment in their work, they will be relatively sensitive to the rewards the organization provides in return, for instance, in the form of salary, positive feedback and career advancement. When such rewards fall short of what one feels one deserves in terms of one’s inputs, burnout may develop. Studies among student nurses (Schaufeli, Van Dierendonck and Van Gorp, 1996) and therapists (Van Dierendonck, Schaufeli and Buunk, 1996) have shown that employees who perceived inequity at the organizational level experience more burnout. Researchers have also documented that feelings of inequity will cause some anger and resentment and social withdrawal among lower paid groups, while in higher paid groups there will be some guilt and self-deception (Carr, Mc Loughlin, Hodgson and Mac Lachlan, 1996).
The next possible explanation for the different findings among nurses and controls might be that profession of nurses is providing services to the patients with direct involvement and satisfaction they get is not by winning over others. As a result their feelings of anger contribute to decreased sense of personal accomplishment, whereas control job involves only incidental contact with patients, and their feelings of anger lead them to feel professionally efficient. Investigators have also suggested that employees who manage their negative emotions (e.g. emotional management), direct their negative emotions to motivate their goal achievement, since emotional management is “cluster of abilities that includes overcoming the distressing effects of negative emotions, like fear and anger, managing impulses, acting in a consistent, trustworthy fashion, and channeling emotions to motivate goal achievement” (Goleman, 1998; 2001).

The results of the present study also revealed that there was a positive and significant relationship between anger-in, mode of anger expression and reduced personal accomplishment in case of both the nurses and controls (see Table 5.2., Table 5.3). This indicates that greater the tendency of nurses and controls to hold their angry feelings inward higher will be the feelings of deterioration of self competence and dissatisfaction with their achievement and vice-versa. It is noteworthy that there is a paucity of research exploring the relationship between modes of anger expression (ax-in, ax-out, ax-con) and burnout dimensions (emotional exhaustion, depersonalization and reduced personal accomplishment) in combination or separately with each other. However, researchers investigating emotional labor and faked emotions have found that anger is one of the most commonly suppressed emotions at work (Mann, 1999). It has also been suggested that people in different work roles may have different expectations on the emotional expression of anger that is required for that role (Fitness, 2000; Glomb and Hulin, 1997). Hochschild (1979) stated that emotional labor may be viewed as an individual process in which employee’s emotion management processes predicted burnout levels. Hochschild (1979; 1983) further suggested two main processes of emotional labor: surface acting and deep acting. The two processes represent how employees manage emotions to meet work role demands. In surface acting, employee modifies and controls their emotional
expressions, whereas deep acting is the process of controlling internal thoughts and feelings to meet the mandated display rules. As discussed in preceding section, Hochschild argued that acting inauthentic over time may result in feeling detached not only from one’s true feelings but also from other people’s feelings, suggesting a relationship with the depersonalization dimension of burnout. Feeling of diminished personal accomplishment is also likely if the employee believes that the displays were not efficacious or were met with annoyance by customers. Thus, surface acting is expected to relate to all three dimensions of burnout (Ashforth and Humphrey, 1993; Brotheridge, 1999). The next possible explanation of positive and significant relationship between anger-in mode of anger expression and components of burnout (e.g. emotional exhaustion, depersonalization, reduced personal accomplishment) in the present study among female group of nurses and controls could be that, observed by researchers which indicated that gender roles have significant influences on both anger related behaviour and anger proneness. In the workplace traditional typed women receive the approval from others and experience less interpersonal strain (Long, 1989). Payne and Cangemi (1997) stated that feminine women leaders considered the need to control anger because they believed displays of anger would be costly to their interpersonal relationships. In a similar context, Kopper and Epperson (1991) found that femininity was significantly related to higher anger suppression and lower anger expression. Researchers have also pointed out that gender difference in an anger expression was due to differential socialization process, and found that girls and women scored higher on anger suppression and control, whereas boys and men scored significantly higher on expressing anger outward (McConatha, Leone and Armstrong, 1997; Cox, Stabb and Hulges, 2000). Moreover, researchers have also pointed out that anger is considered as undesirable emotion symptomatic of irrationality and has considered the use of will to control its expression (Kemp and Strongman, 1994).

The result of this study also reveals that in case of nurses there was a positive and significant relationship observed between anger out and reduced personal accomplishment (Table 5.2). This indicates that higher the anger expressed toward other person or object in the environment, higher will be the
tendency of nurses to evaluate oneself negatively with regard to one's accomplishments at work and vice-versa. Whereas an inverse finding was observed in case of controls (Table 5.3), which indicates that greater the tendency of controls to express their angry feelings outwardly lower will be the sense of reduced personal accomplishment. There is scarcity of researches on relationship between modes of anger expression with overall burnout and its dimensions. However, few researchers have observed a positive and significant relationship between anger turned outwards and overall burnout (Muscatello, Aragona, Carroccio, Cedro, Bruno, La Torre, Di Rosa, La Torre and Zoccali, 2003). Muscatello, Bruno, Carroccio, Cedro, La Torre, Di Rosa, Zoccali, Aragona, La Torre, Mattei, Angelone and Di Orio (2006) reported that increasing levels of burnout was associated with higher anger expressed towards the environment. It was concluded that anger, as a response to frustration, appears to be a feature constantly associated with the clinical expression of burnout and it should not be underestimated in theoretical and preventive contexts. Similarly, in an another study on oncology staff, Zoccali, Campolo, Carroccio, Cedro, Muscatello, Pandolfo, Di Rosa and Meduri (1999) found that subjects with lower sense of accomplishment were those that express more anger and have a smaller control. Fender (1989) identified that increased ease of development of frustration and anger, risk taking behaviour, and overt behavioural expression of emotions as being key identifying symptoms for the development of burnout. Schaufeli and Enzmann (1998) stated that individuals suffer from burnout experienced negative feelings such as fear, anxiety, and nervous tension. At interpersonal level the individual present as “irritable and oversensitive” as well as “cool and unemotional”. Emotional control influenced by lessened emotional empathy for the client population is likely to decrease which in turn allows “burst of anger” to occur. Garden (1987) in studying personality types in understanding burnout argued that there are two personality types such as “thinking” and “feeling” types. She further suggested, that feeling types employ certain defense mechanism characterized by distancing and hostility. In a study on health caregivers, Arora (2002) found that reduced personal accomplishment and anger out were significantly and positively associated with each other.
The correlational analysis also revealed (Table 5.2) that there was a negative and significant relationship between anger control and reduced personal accomplishment among nurses, whereas no significant relationship was found in case of controls (Table 5.3). This means that higher the tendency of nurses to control their overt expression of anger, lower will be their tendency to evaluate themselves negatively and feel unsatisfied with their job performance and achievements and vice-versa. No study has yet specifically mentioned the relationship between anger control and reduced personal accomplishment. However researchers have reported that increasing levels of burnout result in loss of anger control (Glass, 1977; Maslach, 1982). More recently, in a study on oncology and ophthalmology staff, Muscatello, Bruno, Carroccio, Cedro, La Torre, Di Rosa, Zoccali, Aragona, La Torre, Mattei, Angelone and Di Orio (2006) found that anger and burnout were correlated with each other. It was revealed that increasing levels of burnout was associated with loss of anger control. Maslach (1982) argued that negative emotions are common difficulties experienced in the work of helping professionals. Those who cannot deal constructively with these emotions often lose control and that lead to burnout. Further, she argued that burnout prone individual gets easily angered and frustrated by any obstacles in his or her path and may have difficulty controlling hostile impulses. Spielberger (1988) suggested that anger can be managed in 3 possible ways: keeping anger in (anger-in), expressing anger outwardly (anger-out), and discussing angry feelings with others. Use of one mode in anger management does not preclude the use of another. The present study revealed mixed findings in direction of correlations between trait anger and modes of anger expression and burnout components in case of nurses and controls. Although limited in number, earlier research findings are by and large consistent with the results of the present study in the case of nurses. However, lack of adequate research evidence on trait anger and modes of anger expression and components of burnout among professionals in Indian as well as Western context calls for further research in this area.
6.2.3. Relationship of Depression and Burnout (Emotional Exhaustion, Depersonalization and Reduced Personal Accomplishment) among Nurses and Controls

Another finding of the present study revealed that there was positive and significant relationship between depression and all the components of burnout that is emotional exhaustion, depersonalization and reduced personal accomplishment in nurses as well as controls (see Table 5.2., Table 5.3). This indicates that higher the feelings of emotional state of dejection, feelings of worthlessness and guilt and usually apprehension, higher will be the depletion of emotional energy, negative and impersonal response or feelings towards clients or patients and tendency to evaluate themselves negatively, with regard to their accomplishments at work among nurses and controls and vice-versa.

Research evidence shows that there is close association between depression and burnout (Alloy and Abramson, 1988; Martearena and Celentano, 2002; Antony and Dean, 2005). Johnson and Stone (1987) stated that burnout is a negative psychological experience with feelings of depression and a loss of idealistic spirit. Schaufeli and Enzmann (1998) reported that there was a positive and significant relationship between level of burnout and level of depression. They have also provided 3 explanations for the correlations between burnout and depression. First: burnout and depression share common symptoms such as low energy, poor work motivation, and negative attitudes. Second: neuroticism may underline depression as well as emotional exhaustion. Third: common external causes might exist. Baba, Galperin and Lituchy (1999) reported that burnout was the sole predictor of depression. Recently, Toker, Shirom, Shapira, Berliner and Melamed (2005) found that burnout was moderately but significantly correlated with depression. Earlier, Kahill (1988) observed a strong link between burnout and depression. Similar findings were reported by other investigators that burnout and depression correlated with each other (Leiter, 1993).

Several other investigators have also observed a positive and significant relationship between depression and burnout (Greenglass, Burke and Ondrack, 1990; Schaufeli, Maslach and Marek, 1993; Bakker, Schaufeli, Demerouti, Janssen, Vander Hulst and Brouwer, 2000). In a study on health care workers, Bellani, Furlani Gneccchi, Pezzotta, Totti and Bellotti (1996) found that workers who were depressed, anxious or emotionally unstable were more likely to
experience burnout. Korkeila, Töyry, Kumpulainen, Toivola, Räsänen and Kalimo (2003) reported that depression was correlated positively with overall MBI scores. Likewise, Takeda, Yokoyama, Miyake and Ohida (2002) found a positive relationship between depression and burnout. The findings of the present study are consistent with the earlier studies, indicating that burnout and depression are positively correlated with each other. McKnight and Glass (1995) reported that variance shared by burnout and depression was attributable to their co-occurrence.

In a study on nurses, Tselebis, Moulou and Ilias (2001) found that depression was correlated with burnout among them. Recently, Ahola, Honkonen, Isometsa, Kalimo, Nykyri, Aromaa and Lonnqvist (2005) suggested that burnout and depression correlated with each other and cover partly overlapping phenomenon. Depressive disorders were related to job related burnout particularly when it is severe and a current episode is likely to be associated with the experience of burnout. In another study on extension agents, Sears, Urizar and Evan (2000) found that among the large proportion of burnout sufferers 26 percent reported depressive symptoms as well. Hallsten (1993) reported that depressive affect and burnout share a common etiology and opined that both may be end state of process of burning out. Seidman and Zager (1991) studied teachers and found that burnout and depression were significantly correlated with each other. Later, Foreman (1997) revealed that there was a mild to moderate positive correlation between both burnout and subtypes of depression. In another study, Bakker, Schaufeli, Demerouti, Janssen, Vander Hulst and Brouwer (2000) found that burnout was only indirectly related to depression. Wamsley (1995) observed a positive correlation between stresses, stress related depression, and burnout among nurses. Iacovides, Fountoulakis, Moysidou and Ierodiakonou (1999) studied nurses and found a weak but significant relationship between burnout and depression. It was stated that depression is a pervasive disorder that affects almost every aspect of individuals' life. On the contrary, burnout is by definition a syndrome restricted to the individuals professional environment. Researchers concluded that there may be two distinct types of burnout syndrome, of which the one comprising the majority of nurses had little or common symptoms of depression. The second type consisted of individuals with predisposition to develop burnout. The latter type is characterized by more severe symptomatology, phenotypic similarity to depression and presumably common etiological mechanism. Similarly, Chung and Corbett
(1998) posited that nursing staff can suffer from burnout which has some depressive features and can affect their performance at work. In another study on direct care providers, Costa (1995) found that care providers were suffering from burnout and depression. Further, they reported a high correlation between measures of burnout and depression. It was further reported, that all but one subjects reaching the criteria for burnout reached the criteria for depression. However, significant number of subjects were not burned out. The investigator suggested that burnout fails to demonstrate empirical discrimination with respect to depression and was inconsistent with the burnout theory, which predicts burnout-depression relationship only in a final stage of burnout. Faragher, Cass and Cooper (2005) revealed that there was a strong relationship between burnout and depression. Earlier, Masuko, Yamagishi, Kishi and Miyake (1989) also reported that burnout was closely related to depression but simultaneously burnout has its own factors. Similarly, Kapsali, Kehagias and Michopoulou (2005) stated that burnout and depression are separate entities, with many characteristics in common and shared variances. This is more obvious, in severe forms of burnout with loss of self-esteem. The two syndromes could also co-exist and produce a qualitatively different symptomatology, compared to either syndrome alone. However, the critical issue that may discriminate burnout from depression is that in burnout helplessness is confined to work, while depression covers all aspects of patient’s life. However, it is also evidenced that burnout, a term that describes a condition of emotional and mental exhaustion at work is related to depression. It is clear from the above discussion that there is need to carryout researches to further clarify the relationship between depression and burnout, with more clinical studies in different settings. Based on literature it is further suggested that systematic classification of the syndrome in scientific categories should also be explored in the future.

Most of the research highlighted the relationship between depression and overall burnout (Tudini, 1992; Iacovides, Fountoulakis, Moysidou and Ierodiakonou, 1999). However, few researchers have specifically focused on the relationship of depression with components of burnout separately. In a study on physicians, Thommasen, Lavanchy, Connelly, Berkowitz and Grzybowski (2001) found that physician’s depression was correlated with emotional exhaustion component of burnout. Similarly, Grunfeld, Whelan, Zitzelsberger, Willan,
Montesanto and Evans (2000) revealed that physicians who were depressed reported higher level of emotional exhaustion. It was concluded that burnout might be associated with depressive disorder. Another study conducted on psychiatrists, and physicians, revealed that depression had a moderate positive correlation with overall MBI score and emotional exhaustion component of burnout (Korkeila, Töry, Kumpulainen, Toivola, Räsänen and Kalimo, 2003). Falkum (2000) found a high correlation between emotional exhaustion and depression. Dorz, Novaro, Sica and Sanavio (2004) reported that depression was strongly correlated with burnout and predicted high levels of emotional exhaustion among health caregivers. Likewise, Glass, McKnight and Valdimarsdottir (1993) studied nurses and found that depression accounted for over 18 percent of the variance associated with emotional exhaustion component of burnout. In a study conducted on nurses, Molassiotis and Haberman (1996) reported that presence of depression was found to be a strong predictor of emotional exhaustion. Other researchers have also found that there was a positive and significant correlation between depression and emotional exhaustion among two groups of nurses worked in ICU and Non-ICU units of the hospital (Ozgencil, Unal, Okyavuz, Alanglu and Tulunag, 2004). Recently, Nyklicek and Pop (2005) reported that current depressive symptoms of depression found to be the strongest predictor of all three components of burnout among employees with family history of depression. In addition, history of depression in close members independently predicted current symptoms of emotional exhaustion. It was concluded that personal and family history of depression might enhance the risk for burnout. Bellani, Furlani, Gncchi, Pezzotta, Trotti and Bellotti (1996) found that health caregivers overall burnout and its reduced personal accomplishment component were correlated with depression.

Most of the researches conducted in Western setup support the findings of the present study in indicating that depression and burnout (emotional exhaustion, depersonalization and reduced personal accomplishment) are highly correlated with each other. However, more research is needed to explore the correlation between depression and burnout among nurses in Indian setting as well.
6.2.4. Relationship of Perceived Overall Support (Non-Organizational and Organizational) and Burnout (Emotional Exhaustion, Depersonalization and Reduced Personal Accomplishment) among Nurses and Controls

The present study revealed that there was a negative and significant relationship between overall perceived support (non-organizational and organizational) and emotional exhaustion in case of nurses as well as controls (Table 5.2., Table 5.3). This shows that greater the perception of support from family members, spouse, friends, coworkers, and supervisors, lesser will be experience of emotional exhaustion among nurses and controls and vice-versa.

Sarason, Sarason and Pierce (1990) stated that supportive networks 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. Social support is a multi-dimensional construct observed to be a key element in whether a professional is prone to experiencing burnout (Maslach and Goldberg, 1998; Pines, 1983; Pines and Aronson, 1988; Streeter and Franklin, 1992). Considerable amount of research evidence 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 (Constable and Russell, 1986; Buunk, 1990; Lim, 1996; Boyle, Grap, Younger and Thornby, 1991). Empirical studies confirmed the negative relationship between burnout and social support (Mallett, 1988; Haley, 1986; Ogus, 1990; Plante, 1993). Support from family members, colleagues, and supervisors were associated with less burnout (Etzion, 1984; Leiter and Meechan, 1986). Greenglass, Burke and Konarski (1998) found that support from coworkers led to reduced emotional exhaustion among female teachers. Garland (2004) revealed in his study 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. Recently, Thompson, Kirk and Brown (2005) observed that work support from supervisors but not from colleagues was predicted to reduce role stress and emotional exhaustion among police women’s. Earlier in a study on nurses, Constable and Russell (1986) reported that there was a significant correlation between supervisory support and emotional exhaustion.
indicating that support from supervisors can decrease feelings of emotional exhaustion, a significant component of burnout. Fielding and Weaver (1994) found a significant correlation between supervisor support and burnout in hospital nurses. Janssen, Schaufeli and Houkes (1999) reported that workplace social support from one’s supervisor was moderately correlated with emotional exhaustion. Likewise, Lee and Henderson (1996) found that nurse administrators who reported fewer chances to meet with peers experienced higher levels of emotional exhaustion. Earlier, Leiter (1988) revealed in his study on nurses that emotional exhaustion in staff nurses was associated with decreased levels of supervisory support. Gillespie and Melby (2003) found that perceived lack of support and poor communication contributed to the emotional exhaustion of nursing staff. Eastburg, Williamson, Gorsuch and Ridley (1994) reported that there was a negative correlation between work-related support and burnout. Both support from supervisor and peer cohesion contributed to decreased emotional exhaustion in nursing staff. Jenkins and Elliot (2004) found that a higher level of support from co-worker was related to low levels of emotional exhaustion. Similarly, Kirmeyer and Dougherty (1988) observed that higher levels of supervisor support buffered the negative effect of the job demand and decreased feelings of emotional exhaustion among hospital nursing staff. Earlier, Leiter and Meechan (1986) observed that more the instrumental support concentrated within formal network the greater the emotional exhaustion and depersonalization for the individual. Further, researchers reported that support from colleagues, supervisors and family is associated with less burnout. Sundin, Hochwalder, Bildt and Lisspers (2006) found that while work related social support was statistically and significantly related to all the three components of burnout, only supervisory support was significantly related to emotional exhaustion.

Although most of the findings of the earlier studies are consistent with those of the present study, it is important to mention that majority of the cited evidence has reported negative relationship of organizational support with burnout (emotional exhaustion). However, it is evident from the review and preceding discussion, that there are only few studies that addressed to the issue of non-organizational support and overall burnout (emotional exhaustion, depersonalization, reduced personal accomplishment). Baruch-Feldman, Brondolo,
Ben-Dayan and Schwartz (2002) revealed that support was negatively related to burnout. Family support was more closely related to burnout. However, contrary to the findings of the present study, as well as earlier findings, investigators further reported that immediate supervisor support was not found to be significantly related to burnout. Likewise, Sand (1997) reported that support within the organization as well as support outside the organization was associated with lower levels of burnout. Adams (1999) reported that a higher level of burnout was associated with lower levels of social support. Earlier, Pines, Aronson and Kafry (1981) reported that friends' support was negatively correlated with burnout. Similarly, other investigators also observed that social support from colleagues, supervisors, and family members associated with less burnout (Etzion, 1984; Greenglass, Fiksenbaum and Burke, 1995). Bryant (1994) stated that family support is important in coping with burnout. In a study on nurse-midwives, Beaver, Sharp and Cotsonis (1986) found that family support was associated negatively with emotional exhaustion. Another study conducted on nurses revealed that there was no difference on experience of burnout among nurses with high family support and those with low family support (Ogus, 1990). Barnett, Hopkins and Jackson (1986) suggested the importance of spouse and family support in the management of burnout.

Another finding of the present study (Table 5.2., Table 5.3) reveals that there was a significant and negative relationship between overall perceived support (non-organizational and organizational) and depersonalization in nurses and controls. This indicates that higher the perception of support from organizational and extra-organizational sources among nurses and controls, lower will be the development of detached, callous and even dehumanized attitude towards recipients and vice-versa.

In literature there is paucity of studies showing the relationship between overall support (non organizational and organizational) with components of burnout separately, however, few studies have reported this relationship. Majority of the researchers attempted to study the relationship between overall burnout and perceived support. Recently, Touringy, Baba and Lituchy (2005) found that supervisory support moderated the relationship between emotional exhaustion and depersonalization. Further, it was reported that job burnout was
negatively related to effective work support (co-worker and supervisor) which, in turn, influenced the depersonalization component of burnout. In another study, Peeters and Le Blanc (2001) found that support from family moderated the relationship between qualitative demands and depersonalization component of burnout, whereas social support from colleagues moderated the relationship between emotional demands and depersonalization. In a study on social workers, Takeda, Ibaraki, Yokoyama, Miyake and Ohida (2005) found a negative association between social support and burnout. Similarly, several other researchers have found a significant negative relationship between work support and nursing burnout (Paredes, 1982; Mickschl, 1984; Dick, 1986; Hare, Pratt and Andrews, 1988; Mallett, 1988; Eastburg, 1991; Michaud, 1991; Fong, 1993; Plante, 1993; Saulnier, 1993; Haley, 2003). Other studies reported that lack of social support at work enhances nursing vulnerability to burnout (Constable, 1983; Duxbury, Armstrong, Drew and Henly, 1984). Duquette, Kerouac, Sandhu and Beaudet (1994) stated that more a nurse perceives support from colleagues, the less he or she experience burnout. In another study, Bates (2002) observed that there was a negative correlation between high levels of perceived social support, satisfaction and low levels of emotional exhaustion and depersonalization. Cronin-Stubbs and Rooks (1985) reported that social support was negatively related to and predictive of burnout. Constable and Russell (1986) found that lack of supervisory support was a major determinant of burnout among nurses. Similar findings were reported by Cooper (1986), who observed that there was a link between lower levels of supervisory support and a higher risk for burnout among nurses.

It is amply clear that majority of the researchers indicated that social support and overall burnout were negatively associated with each other is consistent with the findings of the present study (see Table 5.2., Table 5.3). While most of the studies investigated social support and burnout as a global variable, no study however, focused on the relationship between non-organizational support and overall burnout and its components. Majority of the studies have focused on relationship between organizational support and overall burnout.

Further, another finding of the present study (Table 5.2., Table 5.3) revealed that there was a negative relationship between overall support and reduced personal accomplishment in case of nurses as well as controls. This means higher
the support from extra organizational and organizational sources, lower will be the feelings of reduced personal accomplishment and vice-versa. Likewise, a negative and significant relationship was observed between non-organizational support and reduced personal accomplishment in case of nurses (Table 5.2), whereas no significant relationship emerged in case of controls (Table 5.3). This shows that higher the perceived support from family members, friends and spouse, lower will be the experience of reduced personal accomplishment among nurses and vice-versa. Further, the finding of the present study revealed that there was a negative and significant relationship between organizational support and reduced personal accomplishment in nurses and controls (see Table 5.2., Table 5.3). This shows that greater the perceived support from supervisor and colleagues in nurses as well as controls, lesser will be the feelings of reduced personal accomplishment.

Literature does not reveal a great deal of evidence of research on relationship between organizational support and reduced personal accomplishment component of burnout. The limited research evidence, however, suggests a negative relationship between organizational support and personal accomplishment. There are only a few studies which have specifically observed the relationship between social support and individual components of burnout. Earlier, Pines and Aronson (1988) stated that six areas of social support, namely, listening, technical, challenge, technical support, emotional support, and emotional reality, contribute to prevent burnout. Several researchers have noted the importance of social support and discussed the way it works to prevent burnout (Pines, Aronson and Kafry, 1981; Maslach and Goldberg, 1998). Rhodes and Eisenberger (2002) stated that perceived organizational support (POS) could also lead to feelings of organizational respect, and this construct has also been related to lower burnout. In one study, Pines (1983) found that the quality of employee’s relationship negatively correlated with burnout. Both higher quality of positive relationship were assumed to be associated with less burnout. Leiter (1991) found that increase in perception of supervisory support is negatively correlated with burnout, showing a decrease in an individual feeling of low sense of personal accomplishment when supervisory support is increased. Earlier, Leiter (1988) reported that coworker interaction can both ameliorate and exacerbate burnout. Recently, Halbesleben (2006) found that sources of social support because of their more direct
relationship to work demand were more closely associated with emotional exhaustion than depersonalization or personal accomplishment, the opposite pattern was found with non-work sources of support. Pines and Aronson (1988) stated that lack of support both at work and outside work was negatively correlated with burnout. Recently, Talmor, Reiter and Feigin (2005) reported that social support was significantly and negatively correlated with burnout, which indicated that less the social support the teacher experienced, the higher was their level of burnout. In a study on critical care nurses, Boyle, Grap, Younger and Thornby (1991) found that social support had a negative relationship with burnout. Both work related and non-work related sources of social support were significantly and negatively related to burnout. Lee and Henderson (1996) found that nurse administrators, who reported fewer chances to meet peers experienced reduced personal accomplishment and higher emotional exhaustion compared with those who had higher organizational support. Koniarek and Dudek (1996) studied nurses and found no correlation between emotional exhaustion and social support of any type (general support of relationships and work support). The level of depersonalization was only related to general support, whereas a personal accomplishment factor was related to both types of support. Researchers suggested that the role of social support in determining the level of particular burnout component varied according to the types and scope of support. Janssen, De Jonge and Bakker (1999), in a study on nurses, found that there was a statistically significant negative correlation between social support from colleagues and burnout. Jansen, Kerkstra, Abu-Saad and Vander Zee (1996) reported that peer and supervisory support reduced feelings of burnout among nurses. Aiken, Clarke and Sloane (2002) reported that lower levels of organizational support and managerial support were related to dissatisfaction, burnout, and even intentions to leave the job among nursing and caring personnel. Duquette, Kerouac, Sandhu, Ducharme and Saulnier (1995) found in their study on nurses that work support from supervisors and peers were equal determinants of burnout. Researchers suggested that perceived social support in their work settings, either from their superiors or their peers, they would be less likely to experience burnout.
Researchers have suggested that organizational environment explaining the significant percentage of the variance in burnout dimensions is the degree of social support that one perceives at work. Different sources at work are vulnerably associated with burnout dimensions (MBI). Some studies have suggested the possibility that these results may be conditioned by the type of support offered by each of the sources (Leiter and Maslach, 1988; Huebner, 1993). While majority of the studies have shown that both sources of organizational support (supervisor and peers) are associated with burnout dimensions (Eastburg, Williamson, Gorsuch and Ridley, 1994; Leiter, 1991; Malone-Beach and Zarit, 1995), others have shown that social support from colleagues was not associated with any of the burnout dimensions at a significant level, or supervisory support and emotional exhaustion was found to be non-significant (Richardson, Burke and Leiter, 1992; Gil-Monte, Peiró and Valcárcel, 1993). However, some other studies found that the relationship between supervisory support and reduced personal accomplishment was not significant, but it was significant for other burnout dimensions (Kootte, 2001). It has been argued by a group of researchers that such a disparity of results may be due to several factors, such as the way in which social support is operationalized, the diverse professional composition of the samples chosen, and the different countries in which studies were made (Lingard and Francis, 2006; Koniarek and Dudek, 1996). From the preceding discussion, it is evident that findings of the present study are by and large consistent with available research evidence, indicating that perceived social support and burnout are highly correlated. However, inconsistencies in literature call for further investigation.

6.3. Job Stress (Severity and Frequency), Trait Anger, Modes of Anger Expression (Ax/In, Ax/Out, Ax/Con), Depression, Perceived Overall support (Non-Organizational and Organizational), and Burnout (Emotional Exhaustion, Depersonalization and Reduced Personal Accomplishment) as Discriminators of Nurses and Controls

6.3.1. Relative Power of Discriminating Variables

Findings of the stepwise discriminating analysis indicated that four out of thirteen variables were identified that significantly separated nurses from their control counterparts. These four discriminating variables in the order of their importance were (i) Severity of job stress (ii) Anger-out (iii) Depersonalization
(iv) Reduced personal accomplishment (see Table 5.4). A special feature of the present study was the use of multiples indices of discrimination, namely, F-to-remove, Wilk's Lambda, Wilk's Decrement and Standardized Discrimination Function (SDF) coefficients simultaneously to identify and confirm the magnitude of relative contribution of variables that accounted for in discrimination between two groups. As stated earlier, F-to-remove values indicate the rank order of power of selected discriminating variables (larger F-values indicate greater discriminating power). Wilk’s Lambda and its decrement also provide similar information, including additional information on the unique contribution of the discriminating variables above and beyond its preceding variables. Thus the best set of four discriminators (severity of job stress, anger-out, depersonalization, reduced personal accomplishment) were identified that significantly separated nurses from their control counterparts. Since, standardized discrimination function (SDF) values were the highest for severity of job stress, it has been identified as most powerful or leading discriminator, which contributed the most in discriminating the two groups. It was followed by anger-out, depersonalization, and reduced personal accomplishment. The signs of loading indicated that severity of stress having a positive signs, made positive contribution to the discriminant function, and anger out, depersonalization and reduced personal accomplishment having negative signs indicated negative contribution to the discriminant function. The group means for these two groups are consistent with signs of these loadings.

The finding of the discriminant analysis indicating that severity of job stress is a leading discriminator has been evidenced in several studies. These researches indicated that nurses scored higher on severity of stressors (Rothmann, Vander Colff and Rothmann 2006; Cronin-Stubbs and Rooks, 1985). while anger-out emerged as a next important discriminator between two groups followed by depersonalization and reduced personal accomplishment. Values of the coefficients indicate that the contributions of these variables in discriminating between the groups were distinct.

So far no study has attempted to address itself with these discriminators in combination vis-à-vis nurses and controls. However study by, Oehler and Davidson (1992) examined predictors of burnout in pediatric nurses
and to compare the incidence of burnout, job stress, anxiety and perceived social support in acute and non-acute care pediatric nurses. It was revealed that acute care nurses reported high burnout and non-acute care nurses reported low burnout. Discriminant function analysis revealed that job stress was the strongest significant predictor of burnout, followed by state anxiety, coworker support, trait anxiety and experience on the unit. It was concluded that the pattern of results suggests that efforts directed toward reducing anxiety and job stress and increasing coworker support, particularly for less experienced nurses, might reduce burnout. Likewise, Parker and Kulik (1995) revealed that social support and job stress were both significant predictors of burnout. In an earlier study, involving stepwise discriminant analysis, Pedrabissi, Rolland and Santinello (1993) examined burnout syndrome among elementary and junior high school teachers and found that reduced personal accomplishment was the most discriminating indicator of the two groups.

It is important to note that combination of these variables severity of job stress, anger-out, depersonalization and reduced personal accomplishment discriminating the two groups suggest job stress, emotional vital signs, and burnout influence the two groups differentially and synergistically influence in discriminating them. It may also be pointed out that the variables like overall job stress, frequency of job stress events, trait-anger, anger-in, anger control, depression, non-organizational and organizational support, and emotional exhaustion which could not be selected for inclusion in the final discriminant function does not imply that these are not important or termed as unimportant or redundant variables. This is suggested by observation in the univariate analysis, where nurses reported higher mean score on overall job stress from their control counterparts. Similar finding was reported in an earlier study on nurses, wherein nurses scored higher on level of overall job stress when compared to some other employed samples (Jones, Janman, Payne and Flick, 1987). Emergence of job stress (severity) as a significant discriminator, not only emphasized its importance as merely an exposure to stressor, at work environment but also their impact, in terms of severity and frequency of occurrence. As it was also observed in a study on nurses, that experience of stress among nurses was contributed by frequency and severity of occupational stressors (Cronin-Stubbs and Rooks, 1985). Emotional
exhaustion variable which could not be selected in the last step also reported to play a central role in burnout process (Lee and Ashforth; 1993) and observed to be significantly higher among nurses when compared to other health professionals (Richardson, Burke and Leiter, 1992; Piko, 2006).

While no Indian study focused on investigating these discriminators with human service professionals, very few studies in the West have attempted to explore synergistic effect of stress, emotional vital signs and burnout among human service professionals. Li Calzi, Farinelli, Ercolani, Alianti, Manigrasso and Taroni, (2006) conducted a study on rehabilitation professionals (e.g. nurses, physiotherapist, physicians and technicians) to assess burnout (emotional exhaustion, depersonalization, reduced personal accomplishment), feelings of depression and anger, psychological uneasiness and perceived stress. It was found that subjects experienced overall medium to low levels of emotional exhaustion and depersonalization dimension of burnout and stress. Moreover mild feelings of depression emerged among technicians. It was further 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. In another study, Jordan (1999) reported that uncertainty at workplace regarding one's job often progress into anger and internalized anger leads to burnout. 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. Later, 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.

The present study indicates that the burnout has a multifactorial perspective. Further, despite its popular image as a syndrome associated with
human service professionals a wide array of social, psychological, behavioral measures may pinpoint the real markers of this syndrome among this population. Research also needs to determine the role of social and demographic factors making this group of workers more vulnerable to this unrelieved psychological problem at workplace.

**Implications**

The main contribution of this research is that it confirms the prevalence of job stress both in terms of severity and frequency of its occurrence, emotional vital signs (anger and depression), and burnout (emotional exhaustion, depersonalization, and reduced personal accomplishment) among nurses when compared them to their control counterparts, which further, support to the available literature showing evidence of these problems among nurses (Healy and McKay, 1999; Glazer, 2005). According to findings of the present study, it is further, clear that job stress, anger, and depression correlate positively with burnout dimensions among nurses. These findings have significant implications for the designing of intervention procedures, aimed at reducing or preventing stress and burnout. Effective anger management techniques should also be required to cope with feelings of anger. Most intervention programs are aimed at the individual professional, usually combining various methods, such as relaxation techniques, cognitive stress management, time management, social skills training, didactical stress management, and attitude change (Pines and Aronson, 1988). Individual/organizational interventions focus on the interaction of the individual within the context of the organization. This approach is situational specific and potentially provides more long term reduction of stress and burnout (Akroyd, et al., 2002). Schaufeli and Enzmann (1998) offer a variety of suggestions for these types of intervention, including strategies to increase awareness (personal screening), improve individual training skills (time management, interpersonal training skills and promoting a realistic image of the job), provide emotional and instrumental support at work, and provide intensive psychological treatment (psychotherapy, counseling and referral). These interventions designed to identify and lessen specific aspects of employee-perceived workplace stress and burnout. These
interventions seem to be more effective because they focus on the cause of the problem, not predominantly on the outcome of the problem. Studies indicate that burnout workshops can reduce the symptoms of associated work stress and burnout (Schaufeli, 1995; Freedy and Hobfell, 1994). McDonald and Hodgdon (1991) reported that physical exercise may be one of the most effective strategies to prevent or lessen the effects of depression and anxiety. Empirical evidence indicates that relaxation exercises, social skills training and cognitive-behavioural therapies are efficacious in reducing irrational thoughts (e.g. anger), and ineffective response patterns (Deffenbacher, 1995). Akroyd, Caison and Adams (2002) suggested that providing nurses with techniques to reduce job stress is helpful, but such methods can be more effective if the organization also seeks to make the job less stressful. Health care organizations need to acknowledge that those who work in the helping professions may need help, to cope with the stress, negative emotions of anger and depression, and burnout, that are often associated with such practice. Therefore future research should focus on developing strategies that encourage effective management techniques within hospital environment to prevent and deal with job stress, emotional vital signs and burnout. Genuine efforts should be made to alleviate job stress, negative emotions and burnout among nurses and other healthcare professionals within organization. If nurses and other healthcare professionals are able to determine stressors in the work environment then they may be better able to handle problems when, and even before, they arise. The identification of effective coping skills may be useful to other healthcare workers to help manage stress.

6.4. Suggestions For Future Research

In the backdrop of present study some suggestions for future research is given below:

1. Longitudinal research is required in order to better understand the relationship between job stress, emotional vital signs (anger and depression) perceived support (organizational and non-organizational) in relation to burnout and it should be investigated in a wider variety of hospital setups using larger samples.
2. Researchers should conduct comparative studies to identify stressful situations which cause burnout unique to nursing community while considering, state, nation and ethnic differences for better understanding of antecedents of burnout.

3. Researches are also needed to study personality variables in relation to burnout to provide better insights into the influences of personality variables and their unique contribution to burnout proneness among individuals in various service oriented organizational group.

4. Specific studies on factors regulating burnout should also be conducted by researchers in addition to general studies, as it is necessary to know the factors affecting burnout in order to cope with it.

5. Future research may focus in developing specific knowledge relative to nursing interventions which may contribute to the prevention of job stress and burnout and promotion of mental and physical wellbeing. Prevention programmes need to focus on different set of job stressors depending on targeting specific burnout component.

6. Recent researches also suggest that emotional labour variables namely emotional demands and emotion regulation conduce to burnout (Brotheridge and Grandey, 2002). Therefore more research is needed to examine these variables in relation to burnout considering occupational differences.

7. Emotional vital signs (anger and depression) are overlooked by Indian researchers in particular among nurses. Therefore research is needed to explore these emotions considering cultural norms of the society.

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