Chapter two considers the current literature which deals with the study variables. Sources of information were books, printed journals, theses and dissertations, and internet such as online journals, PubMed, Science direct, MEDLINE, Springer ling etc. The review of literature is broadly organized under the following headings.

- Concept of quality of life
- Quality of life of nurses
- Stress and coping of nurses
- Job satisfaction of nurses
- Self-esteem of nurses
- Social support of nurses
- Psychiatric morbidity among nurses
- Indian researches on study variables

Concept of quality of life

Quality of life is a broad concept and can be defined in many different ways. The phrase ‘quality of life’ first entered the vocabulary after World War II when it was used to emphasize that the ‘good life’ depends upon more than material affluence encompassing, instead a wide range of factors such as employment, housing, the environment, the visual arts and health. QOL may be defined as subjective well-being. Recognising the subjectivity of QOL is a key to understanding this construct. QOL reflects the difference, the gap, between the hopes and expectations of a person
and their present experience. Human adaptation is such that life expectations are usually adjusted so as to lie within the realm of what the individual perceives to be possible. This enables people (who have difficult life circumstances) to maintain a reasonable QOL even in difficult life circumstances.\footnote{48}

Quality of Life is tied to perception of 'meaning'. The quest for meaning is central to the human condition, and we are brought in touch with a sense of meaning when we reflect on that which we have created, loved, believed in or left as a legacy.\footnote{48} It is the degree to which a person enjoys the important possibilities of his/her life. Possibilities result from the opportunities and limitations each person has in his/her life and reflect the interaction of personal and environmental factors. Quality of life is the product of the interplay among social, health, economic and environmental conditions which affect human and social development. Three major life domains identified are Being, Belonging, and Becoming. The conceptualization of Being, Belonging, and Becoming as the domains of quality of life were developed from the insights of various writers. The extent of a person's Quality of life in the areas of Being, Belonging, and Becoming and their sub-domains is determined by two factors: importance and enjoyment. Thus, Quality of Life consists of the relative importance or meaning attached to each particular dimension and the extent of the person's enjoyment with respect to each dimension. In this way quality of life is adapted to the lives of all humans, at any time, and from their individual perspectives.\footnote{48}

The approach to the measurement of the quality of life derives from the position that there are a number of domains of living. Each domain contributes to
Quality of life is an individual's perception of his/her position in life in the context of the culture and value systems in which he/she lives, and in relation to his/her goals, expectations, standards and concerns. It is a broad-ranging concept, incorporating in a complex way the person's physical health, psychological state, level of independence, social relationships, and their relationship to salient features of their environment. This sensitivity to the specific life situations of individual people also presents a limitation, namely that people may be highly satisfied with the important possibilities of their lives within an environment that is of poor quality. This may result from people being unaware that better quality is possible, or from people being consciously aware that they have to suppress the importance of some possibilities because of their present circumstances. For example, people living in institutions may consider their quality of life to be good because they have had no opportunities to know other possibilities and have no power to effect change in any case. Thus quality of life needs to include the quality of the environment in which the person lives. A quality environment is one which: provides for basic needs to be met (food, shelter, safety, social contact), provides for a range of opportunities within the individual's potential and which provides for control and choice within that environment.

Quality of life of nurses

To practise effectively nurses need an environment that supports quality professional practice. The quality of nurses’ professional practice environments has a direct correlation with job satisfaction, work production, recruitment and retention,
the quality of care, and ultimately, client outcomes. There is every reason to believe
that problems in work design and workforce management that nurses have identified
will lead to uneven quality of care, medical errors and adverse client outcomes. 49

Three dimensions of the quality of nurses' working life in a health
maintenance organization: job satisfaction, job tension, and organizational
commitment were studied by Smith (1981). Subjects included 50 licensed vocational
nurses (LVNs), 47 registered nurses (RNs), and 14 nurse practitioners (NPs). Nurse
practitioners registered a statistically significant higher level of job satisfaction than
RNs and LVNs; RNs registered a statistically significant higher level than LVNs.
Nurse Practitioners reported more job tension than RNs or LVNs, and RNs reported
more than LVNs, but the differences were not significant. Differences among the
groups were not significant for organizational commitment, but NPs expressed the
highest level of commitment. 50

Yu, Hung, Wu, Tsai, Wang, Lin (2008) conducted a cross-sectional research to
explore the Quality of life and job satisfaction and their inter-relationships among
nurses. Participants were 1,020 nurses who had worked for over six months at seven
hospitals in Yunlin and Chiayi counties. Nine hundred and eleven questionnaires were
returned, with a response rate of 89.3%. The questionnaire comprised three parts:
demographic characteristics and work environment, quality of life, and job
satisfaction. The Cronbach's alphas were 0.87- 0.94. Data were analyzed by SPSS/PC
13.0. The results showed that factors affecting job satisfaction were support from
managers, number of patients cared for during day time, health status, stress from
changing units, religion, work stress, and working unit's suitability to one's interests
Chapter I

I

Review of Literature

(R(2) = 53.5%). Factors affecting quality of life were job satisfaction, happiness of life, health status, work stress, and age (R (2) = 51.0%). There was a positive correlation between job satisfaction and quality of life. Study concluded that nursing managers should create better work environments to improve nurses' job satisfaction and facilitate their retention in the nursing profession.51

Lee (2004) identified correlations between fatigue and quality of life among clinical nurses in Korea. A sample of 294 nurses working in 3 general hospitals answered a questionnaire containing Yoshitake's fatigue scale (1979) and WHOQOL-BREF. Data were analyzed using t-test, ANOVA and Pearson correlation coefficients. The SPSS 11.0 version was used for analysis. The score for level of fatigue was 2.11 (52.7%) and quality of life, 2.89 (57.8%). The level of fatigue was highest in the physical domain followed by psychical and nervous-sensual domain in that order. There were statistically significant differences in scores of fatigue depending on the nurse's age, marital status, career, position, health status and present illness. Quality of life had the highest score in the social domain followed by physical, psychological, and environmental domain. There were statistically significant differences in scores on quality of life depending on nurse's age, marital status, career, position, health status and present illness. The relationship between fatigue and quality of life revealed a significant negative correlation. Based on this study, nursing administrators need to reduce the level of nurse fatigue by providing various programs, which improve quality of life.52

Somgiat, Oumtanee (2007) studied Quality of working life of professional nurses and the relationship between variables such as job characteristics, perceived
organizational support, and head nurses-staff nurses relationship. The sample consisted of 250 professional nurses working in Police General Hospital, Bangkok, Thailand, who were selected by stratified random sampling technique. Statistical methods used to analyze the data were mean, standard deviation, Pearson's product moment correlation coefficient, and stepwise multiple regression analysis. The results of the study revealed that the overall quality of working life of professional nurses at Police General Hospital was at the moderate level. Variables predicting quality of working life of professional nurses at p = 0.05 were, perceived organizational support and head nurses-staff nurses relationship. These predictors accounted for 49.7 percent of the variance (R² = 49.7). These findings indicated that the factors, perceived organizational support and head nurses-staff nurses relationship, have effect on the quality of working life of professional nurses so that the nursing administrators should support and create good relationship with their staff nurses in order that they will improve their work qualitatively and effectively.  

Balseiro, Valle, Gracida, Guerrero, Hernández (2006) conducted a study to analyze the quality of life that the nurses have in National Medical Center of the Institute of Security and Social Services of the Workers of the State in Mexico city in a sample of 456 professionals. Of the total of studied professionals of infirmary, 74.65% possessed good sense of humor, 86.54% had good level of confidence in them, 78.77% presented/displayed high self-esteem, 69.41% enjoyed good health, 78.09% enjoyed inner peace, 79.23% had satisfaction in the work and 75.34% had good deal with their family and good familiar relations. The study concluded that the nurses of this institution have medium quality of life.
Hsu, George (2006) carried out a descriptive study with a convenience sample to determine Quality of working life of nurses in Taiwan. A total of 16 focus groups in one medical centre and five regional hospitals informed a quality of working life framework. Each group had three to five participants who were Registered Nurses in medical or surgical wards with at least two years nursing experience, and held a position below assistant nurse manager. A total of 56 nurses' quality of working life categories were identified and fitted into six dimensions: socio-economic relevance, demography, organizational aspects, work aspects, human relation aspects and self-actualization. The issues emphasized by focus group participants were managing shift work within the demands of family life; accommodation; support resources; and nurses' clinical ladder system and salary system. Further research is needed with other groups of nurses in a wider variety of settings in order to examine strengths and weaknesses in the total healthcare work environment and to develop appropriate strategies for nurses' quality of working life.55

Chiu, Jiun, Wei, Mei, Kumashiro, Ilmarinen (2007) investigated the work ability and its relationship with quality of life for the clinical nurses in Taiwan. The survey was of 1534 nursing professionals from eight different hospitals. Work ability of nursing professionals varied by age, work experience, working departments and hospital types. Work ability of nurses increased with age until after the age of 45. Personal health condition and physical workload were the main factors contributing to the decline of the perceived work ability for senior nurses. For young nurses, the mental demands of work were a critical influence on their work ability. Moreover, work ability of nurses varied among hospital type and department. The work ability of nurses was strongly associated with the quality and safety of the work environment.
and leisure time management. For improving and maintaining the work ability of nurses, counter measures such as enhancing the ability to cope with the job’s mental demands for young nurses, and improving the job design to reduce physical workload for senior nurses are recommended.\textsuperscript{56}

Delmas, Duquette (2000) conducted a study to examine the relations between hardiness, coping strategies and quality of life at work of French nurses working in the intensive care units and to examine the mediating effect of coping strategies between hardiness and quality of life at work. Data were collected using a self-administered questionnaire, anonymously filled by 137 nurses. Maddi & Kobasa's theory (1984) of Hardiness was the foundation for the study and Baron & Kenny's statistical model (1986) was used to determine the mediating effect of the coping strategies. Regression analysis demonstrated that positive reevaluation/problem solving strategies had a mediating effect between a sense of commitment, a sense of mastery and quality of life at work. These results prompted various propositions in order to improve nurses’ quality of life at work.\textsuperscript{57}

Alfaia dos Santos, Beresin (2009) conducted a cross-sectional study to evaluate the quality of life of operating room nurses and to collect their opinions as to the influence their professional activity exerts on their quality of life. This was carried out on a sample of 24 nurses of a large private hospital in the city of Sao Paulo. Two questionnaires were applied; one was designed by the researchers, and the other was the Quality of Life Questionnaire (WHOQOL-BREF). As to quality of life, the environment domain obtained the highest score, while the psychological domain obtained the lowest. When asked if their professional activity in the operating room
influenced their quality of life, most responded affirmatively. Regarding the justifications offered by the nurses for the influence of their professional activity on their quality of life, 50% mentioned environment-related stress, responsibilities, duties, risk situations, relationships with the multiprofessional team, and the type of work carried out in the operating room. The psychological domain obtained the lowest score in the nurse quality of life evaluation, pointing out the need to facilitate and/or encourage nurses to seek psychological support. As to the influence of their professional activity on their quality of life, the nurses mentioned stress related to their work environment and professional activities in the operating room. This highlights the importance of managers in this area, paying greater attention to the individual and collective needs of their employees. 

**Nursing and Stress/ burnout and coping**

We are living in a world, which is fast changing in physical, economic and social context. Most of us are under stress sometime or the other. Stress has been termed as the epidemic of the 90's in a report published by the World Health Organization. Stress is an internal state, which can be caused by many causative factors. Lazarus and Folkman (1984) define stress as “a relationship between the person and environment that is appraised by the person as taxing or exceeding his resources and endangering his well-being”. In biological terms stress is a state of increased arousal necessary for an organism to defend itself when faced with actual or perceived threats to self. Thus stress may be referred to as pressure that threatens the ability of the person to continue to function adequately. Stress can be caused by many factors. It could be physical, environmental and social factors that lead to stress.
Stress is usually defined from a ‘demand-perception response’ perspective.\textsuperscript{60} Lazarus and Folkman (1984)\textsuperscript{41} integrated this view into a cognitive theory of stress that has become the most widely applied theory in the study of occupational stress and stress management.\textsuperscript{61,62} The basic concept is that stress relates both to an individual’s perception of the demands being made on them and to their perception of their capability to meet those demands. A mismatch will mean that an individual’s stress threshold is exceeded, triggering a stress response.\textsuperscript{63}

An individual’s stress threshold, sometimes referred to as stress ‘hardiness’, is likely to be dependent upon their characteristics, their experiences and coping mechanisms, and also on the circumstances under which the demands are being made. A single event, therefore, may not necessarily constitute a source of stress (i.e. be a ‘stressor’) for all nurses, or for a particular individual at all times, and may have a variable impact depending upon the extent of the mismatch.\textsuperscript{64} Assessing stress is likely to be very difficult in an occupation as diverse and challenging as health care, yet the effectiveness of organizational interventions to reduce or eliminate sources of stress depends upon a sound understanding of the stress phenomenon for nurses. Assessment is further complicated because the term ‘stress’ is often used too simplistically. Negative connotations are usually ascribed to the term, yet some stress responses are of positive benefit.\textsuperscript{60} ‘Eustress’ is a term commonly applied to these more positive responses, whilst the term ‘distress’ appropriately describes negative aspects. ‘Stress’, therefore, should be viewed as a continuum along which an individual may pass, from feelings of eustress to those of mild/moderate distress, to those of severe distress. Indicators of distress are recognized but those of mild/moderate distress may not be observed collectively, or may have differing
degrees of severity, and so symptoms at this level of distress are likely to vary between individuals. In contrast, severe and prolonged distress culminates in more consistently observed symptoms of emotional ‘burnout’ and serious physiological disturbance.\textsuperscript{65}

The experience of stress represents a psychological state. It can result from exposure, or threat of exposure, both to the more tangible workplace hazards and to the psycho-social hazards of work. The experience of stress is one important outcome of exposure to the hazards of work and to hazardous situations. Those hazards of work which are associated with the experience of stress are often termed stressors. Applied directly to nursing, contemporary theories of stress suggest that a situation which is typically experienced as stressful is perceived to involve work demands which are threatening or which are not well matched to the knowledge, skills and ability to cope of the nurses involved, or work which does not fulfill their needs, especially where those nurses have little control over work and receive little support at work or outside of work.\textsuperscript{60}

Workplace stress has long been recognised as a challenge for the nursing profession. Aside from its effects on nurses’ physical and mental health, workplace stress has serious implications for health care in general, not least because of the severe and growing shortage of nurses in many countries. Stress perception is highly subjective, and so the complexity of nursing practice may result in variation between nurses in their identification of sources of stress, especially when the workplace and roles of nurses are changing. Many studies on stress in nursing have attempted to measure, or have speculated on, the effects of such stress on nurses’ health and well-
being. There appears to be general agreement that the experience of work-related stress generally detracts from the quality of nurses’ working lives, increases minor psychiatric morbidity, and may contribute to some forms of physical illness. Such conclusions receive support from available governmental statistics in many countries.  

Nursing is, by its very nature, an occupation subject to a high degree of stress. Every day the nurse confronts stark suffering, grief, and death as few other people do. Many nursing tasks are mundane and unrewarding. Many are, by normal standards, distasteful, even disgusting, others are often degrading; some are simply frightening.

An inter-professional study of nurses, field social workers, and teachers was conducted in Northern Ireland by McGrath, Reid, Boore (2003) Sample were drawn using stratified random sampling, and the strata used were grade, sex and age. The age bands used were: under 30, 31–45, 46–55, 56–60 and over 60 years. In the event, two standard schedules were selected, the General Health Questionnaire by Goldberg (1978) and the Maslach Burnout Inventory by Maslach and Jackson (1981). The team designed a number of further questions to investigate professional and personal sources of stress, modes of alleviation of stress, concrete outcomes associated with stress such as absenteeism, avoidance behaviour, and contact with health and personal social services. Seven per cent felt that colleagues caused them more stress than patients, with a further 50% feeling this was true of some colleagues but not of others. Sixty-seven per cent felt that communications with colleagues were effective or very effective, with only 3% describing these communications as poor. Sixty-three per cent of staff thought communication with immediate superiors was effective or very effective, with only 5% describing some communications as poor or very poor. Nearly
80% of respondents said they felt unable to influence decisions at least sometimes, and 25% said this was the case often or always. Eighty-five per cent said they felt powerless to change unsatisfactory situations. Twenty-two per cent of respondents said they felt inadequately trained or equipped for the job, and 47% felt that the job did not always utilise fully their training and experience. On the subscale which measures burnout due to feelings of lack of personal accomplishment, nurses exhibit high levels. Almost all of the respondents fell in the high burnout category for frequency (97%) and intensity (94%). The most commonly cited stressor experienced by 67% of nurses was experiencing too little time to perform duties to the nurses’ satisfaction. Over half of the respondents (52%) felt that more pay would alleviate stress, whilst 40% felt more financial resources would alleviate stress. Nearly half of the respondents mentioned the meeting of imposed deadlines as a source of stress, and over a third found counteracting unhelpful views others held of their job a cause of stress. The least stressful factors were working with ancillary staff, direct contact with patients, and contact with ‘significant others’ such as relatives. It is notable how small a percentage of nurses reported significant stress levels from emotional demands and direct contact with patients, a finding in contrast to those from social workers and teachers (48% and 32% from social workers, and 47% and 46% from teachers respectively). The results also show differences in response to these questions between hospital and community based staff, with direct contact with patients and the emotional demands of patients causing community-based nurses more stress, and the hospital-based nurses showing more stress from contact with other professionals and imposing controls which curtail or restrict the personal autonomy of patients. Respondents were asked about stressors in their lives, other than those directly relating to their working lives. The greatest sources of stress in personal lives were
adult relatives within the immediate family (17%) and financial difficulties (13%). It should be noted, however, that the levels of stress in personal lives are considerably less than those in professional lives. This suggests that nurses perceive working life as the source of substantially more stress than personal or domestic life.\(^6\)

Turek, Urek, Turek (2006) investigated the degree of burnout experienced by intensive care staff particularly, in Medical (MICU) and Surgical Intensive Care Units (SICU) of General Hospital Sveti Duh, Zagreb. A sample group of 41 emergency physicians and nurses from MICU and 30 from SICU was tested. The survey included demographic data and Maslach Burnout Inventory (MBI) scoring test identified by the three main components associated with burnout: emotional exhaustion (MBI-EE), depersonalization (MBI-DEP), and personal accomplishment (MBI-PA) were assessed using the 22-item questionnaire. The degrees of burnout were stratified into low, moderate, and high range. Mean total MBI (X +/- SD) were high in both groups: higher for the MICU (65.5 +/- 6.7) than for SICU staff (55.7 +/- 3.8, p < 0.05). MICU staff showed moderate degree of MBI-EE (24.9 +/- 11.2), MBI-DEP (6.0 +/- 5.6), as well as MBI-PA (34.4 +/- 8.8). The same parameters showed better results among SICU staff: low degree of MBI-EE (17.1 +/- 5.2), as well as low level of MBI-DEP (5.2 +/- 5.0), and moderate degree of MBI-PA (33.7 +/- 9.8). The differences between the groups were statistically significant only for the total MBI, and for MBI-EE (p < 0.05). There were no significant differences between MICU and SICU staff for MBI-DEP or MBI-PA parameters. Overall job burnout represented in a moderate degree. The presence of burnout is a serious phenomenon, because it can lead to psychosomatic complaints, work-associated withdrawal behaviour, and a lower quality of care at intensive care units. Early recognition of burnout phenomenon as a

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result of prolonged stress and frustration among intensive care staff, contributes to better professional behavior, organizational structure changes in the work environment and better health care quality for critically ill patients.  

While considerable research has been devoted to job stress within individual health professions, little information has been available for comparing the sources or levels of stress among different groups of health professionals. To bridge that knowledge gap, the Health Professions Stress Inventory (HPSI) by Wolfgang, 1988 was administered via a mail questionnaire to 291 primary care physicians, 379 registered nurses, and 387 pharmacists randomly selected from across the United States by Wolfgang (1988). Mean stress scores on the HPSI were significantly different for all three professions, with nurses reporting the greatest levels of stress. Frequency of exposure to individual stressful job situations also differed significantly among the professional groups. While exploratory in nature, the results of this research emphasize the inter-professional differences that must be considered when considering the management of job stress in the health care system.

Olley (2003) compared burnout and its associated factors in various health professionals working at the University College Hospital, Ibadan, Nigeria. Two hundred and sixty health care providers were sampled from 5 main units: Theatre/Intensive Care Unit (ICU), Accident and Emergency (A & E), Oncology, Dentistry and General Outpatients Department (GOP). Included were 104 nurses (40%), 83 doctors (31.9%), 21 pharmacists/pharmacy technicians (8.0%), 10 medical social workers (3.8%) and 42 nursing assistants (16.1%). Outcome measures included the Maslach Burnout Inventory (MBI,1981), the 30-item General Health
Questionnaire (GHQ, 1988,) and the Spielberger State Trait Anxiety Inventory (STAI, 1970). Core findings indicated that nurses consistently reported higher scores on all measures of burnout: exhaustion ($F = 3.60$, $df = 258$, $p < 0.05$), accomplishment ($F = 3.94$, $df = 258$, $p < 0.05$) and depersonalization ($F = 4.58$, $df = 258$, $p < 0.01$) when compared with other health care providers. Significant differences were also noted between nurses and all other care providers in total scores on the General Health Questionnaire ($F = 6.54$, $df = 258$, $p < 0.01$) and the State Trait Anxiety Inventory ($F = 1.91$, $df = 258$, $p < 0.05$), respectively.  

Another study was conducted by Healy, McKay (1999) to identify what the nurses perceived as the major causes of stress in the workplace using a standardized questionnaire Nursing Stress Scale (NSS) by Gray Toft and Anderson James (1981), and by way of written reports. Level of job satisfaction was measured using the Nursing Stress Index by Harris, Hingley and Cooper (1988). Results showed that the nurses rated their workload as highly stressful in terms of both frequency of its occurrence and its perceived effect upon themselves. As expected, higher levels of reported nursing stress were associated with lower levels of job satisfaction. Analyses of the written descriptions of a recent stressful work episode provided by 66 of the nurses included examples of relevant nursing stressors that were not covered by the NSS.  

Bratt, Broome, Kelber, Lostocco (2000) studied the influence of stress and nursing leadership on the job satisfaction of Pediatric Intensive Care Unit (PICU) nurses using a cross-sectional descriptive design. The purpose of the study was to explore the effect of personal attributes, unit characteristics, and work environment on
the nurses’ reported job satisfaction. A second purpose was to identify stressors unique to the pediatric intensive care setting. A sample of 1973 PICU nurses were recruited from 65 pediatric acute care hospitals in the United States and Canada. All data were collected within a three-month period. Self-reported questionnaires were used. Response rate was 70% on all questionnaires. Reliability for each instrument was assessed using Cronbach’s coefficient alpha and yielded acceptable estimates (α = 0.83 to 0.96). Significant negative correlations (p<0.001) were seen between job stress and all other variables: Organizational Work Satisfaction (r = 0.56), Professional Job Satisfaction (r = 0.52), Nursing Leadership Behaviors (r = 0.47), Group Cohesion (r = 0.43), and Physician Collaboration (r = 0.37). After stepwise multiple regression, it was determined that job stress explained 32% of the total variance of job satisfaction. A second stepwise multiple regression was performed with professional job satisfaction as the dependent variable. Job stress again showed the most powerful variance (27%). Stress levels were highest among new and inexperienced staff and among nurses who worked on different types of shifts and different shift lengths. No significant relationships were demonstrated between variables and unit retention rate.73

Snelgrove (1998) compared stress and job satisfaction in a sample (N = 143) of health visitors (HV), district nurses (DN), and community psychiatric nurses (CPN) in mostly urban and some rural areas of a health district in England. Stress levels were measured using the General Health Questionnaire –12 by Goldberg (1988) which has estimated coefficients for reliability and yielded valid results among both nurses and medical students. A 5-point Likert scale measured job satisfaction. The researchers developed a 47-item questionnaire to measure sources of stress and satisfaction.
Content validity was determined through examination of individual items by a panel of health visitors and nurse experts. The general level of stress in the sample, as determined by the GHQ-12 revealed that HVs and DNs were experiencing high levels of stress. Mean scores on the job satisfaction data showed that HVs perceived the least satisfaction while the DNs and CPNs perceived moderate job satisfaction. Stress and satisfaction were correlated using Pearson Product Coefficient ($p < 0.05$). Small but significant correlations were found with a range of $p= 0.001$ to $0.042$. Sources of significant stress in this sample were the ongoing emotional and physical strain of long-term care clients and families and lack of management support in changing work roles. Sources of job dissatisfaction were also primarily related to lack of management support and information in the changing work situation. Study concluded that improving the supervisory support could reduce some stress factors in this population.\textsuperscript{74}

Fletcher (2001) conducted a study examining the relationship between nurses’ stress and illness or injury. Part of the study included determination of job stress, job satisfaction and intent to leave employment. Instruments used to measure these factors were The Health Professions Stress Inventory by Wolfgang (1988) measuring stress, (Cronbach’s coefficient $\alpha = 0.90$), the Job Diagnostic Survey by Richard Hackman and Gregoldhom (1974) measuring job satisfaction, (Cronbach’s coefficient $\alpha = 0.90$), and one 5-point Likert type question on whether they were likely to stay in the profession. Nurse respondents were also given the opportunity to make additional comments. The descriptive statistics revealed that the sample was sometimes to some extent stressed ($M = 57.31; SD = 15.75$), only slightly satisfied with their jobs ($M = 5.040; SD = 0.99$), and very likely to remain in nursing ($M = 4.08; SD = 1.12$).
However, the qualitative data provided by the additional comments revealed that many of the nurses in this sample experienced many stressors related to their job. These stresses were affecting their satisfaction with the organizations in which they worked even when they still had good satisfaction with the nursing profession. The responses also indicated that the nurses often intended to stay in their jobs for reasons other than their job satisfaction.  

Hemingway and Smith (1999) explored turnover, absenteeism, and work related injuries as negative outcomes of organizational climate directly and indirectly mediated by occupational stressors. The non-experimental, cross-sectional study explored four specific climate dimensions, four stressors, and three outcomes considered organizationally negative. Three hypotheses were proposed of which the second hypothesis was the most directly related to the current study. The researchers hypothesized a positive relationship between occupational stressors and negative behaviors outcomes. The study was conducted in four hospitals in a small city in Canada. The sample consisted of 252 full-time registered nurses with a mean age in years of 42. Most were married (71%) women (98%) who held basic diplomas in nursing (81%). Work experiences included differing units and shifts while years of experience ranged from 1 – 38 years. Stressors were measured using two different instruments. Role conflict ambiguity was measured using a 5-point Likert scale. The three items questioned thoughts about leaving the current position and the probability of seeking another position in the coming year. Predictive relationships among the 11 variables were tested using multiple regression procedures. In the initial regression, the hypothesis that higher stress indicators would positively relate to higher negative behavior outcomes was, with the exception of short-term absences, supported.
Specifically, intent to leave was significantly related to all stressor subscales: Role Conflict ($r = 0.30, p < 0.001$), Role Ambiguity ($r = 0.33, p < 0.001$), Workload ($r = 0.48, p < 0.001$), and Death and Dying ($r = 0.18, p < 0.05$). However, in further regressions only the subscale for role conflict showed a significant prediction for turnover intention ($\beta = 0.18, p < 0.05$).

Williams (2003) explored the relationships between Job Stress, Job Satisfaction, and Intent to Leave Employment in a sample of nurses working in maternal child health. A convenience sample of 30 nurses from the Women’s Center of a regional non-profit hospital in Appalachia, US completed self-report surveys. The sample included registered nurses (RN) and licensed practical nurses (LPN) working full time in labor-delivery-recovery unit (LDR), newborn nursery (NBN), newborn intensive care unit (NICU), and mother-baby unit (NBU). The Expanded Nursing Stress Scale (ENSS) by French et al (2000), a 57 item self-report survey, was used to assess perceived stress ($\alpha = 0.92$). Job Satisfaction ($\alpha = 0.88$) was measured using seven items from Price and Muller (1981) Professional Turnover questionnaire. Relationships among the variables were examined using Pearson’s Product Moment Correlation Coefficient. A moderate inverse relationship was demonstrated between Job Satisfaction and Intent to Leave Employment indicating that as Job Satisfaction increases, Intent to Leave Employment decreases. Means and standard deviations were used to identify levels of job stress and job satisfaction. The nurses surveyed showed a moderate level of job stress ($M = 145.2; SD = 31.04; \text{range of } 86 - 210$). Those who showed levels of stress above the group mean were between the ages of 26-35 years (83%), had an educational level of LPN (60%) or Associate Degree in Nursing (ADN) (56%), worked night shift (56%), worked shifts of 8 hours (60%), had
an average patient assignment of 4-6 patients (75%), and/or worked six or less years at the hospital (90%). Of the four units surveyed, the Newborn Intensive Care Unit (NICU) showed the highest percentage of nurses with stress above the sample mean. The nurses showed moderate job satisfaction (M = 17; SD = 1.58; range of 7 - 21). Scores above the sample mean were seen in nurses who were 56-66 years of age (66%), had an educational level of Bachelor of Science in Nursing (BSN) (50%), and worked night shift (56%). The NICU showed a markedly higher percentage of nurses with satisfaction scores above the mean (56%) compared with the other units.77

Chang, Bidewell, Huntington, Daly, Johnson, Wilson et, al (2007) hypothesised an association between problem-focused coping and improved health, emotion focused coping and reduced health, and more frequent workplace stress and reduced health. Objectives of the study were to test the above hypotheses with Australian and New Zealand nurses, and compare Australian and New Zealand nurses’ experience of workplace stress, coping and health status. Three hundred and twenty-eight New South Wales (NSW) and 190 New Zealand (NZ) volunteer acute care hospital nurses were randomly sampled. Instruments used were demographic questionnaire, the Nursing Stress Scale by Gray Toft James G and Anderson(1981), the Ways of Coping Questionnaire (WAYS) by Lazarus and Folkman (1988) and the SF-36(1992) Health Survey Version. Consistent with hypotheses, more frequent workplace stress predicted lower physical and mental health. Problem-focused coping was associated with better mental health. Emotion-focused coping was associated with reduced mental health. Contrary to hypotheses, coping styles did not predict physical health. NSW and NZ scored effectively the same on sources of workplace stress, stress coping methods, and physical and mental health when controlling for
relevant variables. A discriminant analysis compared the two regions on all NSS subscales simultaneously. A second discriminant analysis compared regions simultaneously on all WAYS subscales. Both analyses controlled for age, experience and scale correlations. Neither analysis revealed significant differences between NSW and NZ on any of the NSS or WAYS scales, with \( p > 0.05 \) on all subscales. The final model including all predictors was significant, \( F(7,411) = 5.97, p > .001, N = 419 \), with multiple R = 0.30 and adjusted \( R^2 = 0.08 \), meaning that the predictors collectively accounted for 8% of physical health variability. Adding NSS total stress to the demographic variables at the second stage of the hierarchical analysis added significantly to the physical health \( R^2 \) (\( p < 0.001 \)), whereas adding coping styles to the model at the third stage gave no significant increase in prediction of physical health (\( p > 0.05 \)). Coping styles were unrelated directly to physical health. Higher age and more frequent stress were both significantly predicted lower physical health. Partial correlations (pr) show the strength of the unique relationship between age and health to be low, but not inconsequential. The standardised effect of stress, as measured by the NSS partial correlation, is equivalent to the age effect in this sample. Every additional point scored on NSS total stress has the same negative effect on SF-36 physical health as a 7.2 month increase in age. Although the overall model was again significant, \( F(7411) = 17.51, p < 0.001, N = 419 \), multiple R was considerably higher at 0.48 with adjusted \( R^2 = 0.22 \), meaning that the model predicted a substantial 22% of variability in mental health scores. This level of prediction is notably higher than the 8% result for physical health. Total stress significantly predicted mental health scores, with the negative effect of stress on mental health being much stronger than it was for physical health, as evident from the partial correlations. Emotion focused coping was associated with reduced mental health, with the standardised effect for
emotion focused coping being almost as strong as for stress. Conversely, more frequent use of problem-focused coping responses was mildly associated with improved mental health. Finally, region (i.e., whether respondents were from NSW or NZ) was unrelated either to physical or mental health scores when controlling for the other predictors via multiple regression.

Akhtar, Lee, Lai (2006) conducted a study aimed to (a) establish baseline data on the magnitude of job burnout among nurses employed by the Hospital Authority of Hong Kong, (b) develop norms for the purpose of diagnosing acute job burnout, (c) identify major sources of stress and their influences on job burnout and intention to quit, and (d) gain insights into the role coping resources play in reducing job burnout. This study was conducted in two phases comprising focus group interviews, followed by an extensive questionnaire survey of nursing professionals covering all 43 public hospitals. Job burnout—the Maslach Burnout Inventory (1996) was used to measure three dimensions of job burnout, i.e., emotional exhaustion, depersonalisation, and personal accomplishment. A 17-item scale measured the nurses’ perceptions of control over different facets of their work environment; in particular, emotional exhaustion. The core of job burnout appeared to be widespread, especially in its aspects of physical fatigue and chronic stress. Certain areas of work can be clearly designated as highly stressful, e.g. accident and emergency, medicine, community nursing service, orthopaedics and traumatology, extended care, and oncology. Interestingly, nurses in intensive care units scored lower than the overall mean score on emotional exhaustion. The registered nurses showed above-average scores on emotional exhaustion, as did younger and less experienced nurses. The same groups of nurses had also higher intention to quit the job. The major reasons for the
likelihood of quitting the job were health, retirement, and the job itself. Retirement was of greater concern to older nurses and those with administrative responsibilities and health and the job itself were of greater concern to registered and younger nurses and those with less experience. The nurses had a good measure of self-confidence and belief in their capabilities. Job control contributed positively only to personal accomplishment.  

Payne (2001) carried out a study to investigate the level of burnout among hospice nurses in UK; to ascertain which aspects of nursing work were positively or negatively related to burnout; to examine the relative contributions made by these different variables and to suggest individual and organizational interventions to reduce levels of burnout. Eighty-nine female nurses from nine hospices completed a battery of questionnaires comprising the Maslach Burnout Inventory (1996), Nursing Stress Scale (1981), Ways of Coping Scale (1988) and a demographic information form. Mean burnout scores and the percentage of hospice nurses classified with high, medium and low levels of burnout for each component of the MBI. The mean emotional exhaustion (EE) and depersonalization (DP) scores were low and the mean personal accomplishment (PA) score was moderate. The most frequently problematic stressor was 'death and dying' and the least frequently problematic stressor was 'uncertainty concerning treatment'. The most frequently used coping strategy was 'planful problem-solving' and the least frequently used was 'escape avoidance'. Multiple regression analysis was used to examine whether stressors, coping and demographic factors are significant determinants of burnout. The differential patterns obtained between the independent variables and DP, EE and PA scores in the regression analyses support the idea that burnout is not a single overall
concept. The regression equations predicting EE and DP showed similar patterns, each explaining nearly 50% of the variance, with stressors contributing most and demographic variables the least. However, the regression equation predicting PA showed a very different pattern, explaining only 36% of the variance, with coping strategies explaining the most and stressors the least. In addition, when Pearson correlations were carried out, the PA subscale failed to correlate significantly with EE and DP, whereas EE and DP were significantly positively correlated ($r = 0.38, p = 0.001$).

Adali, Priami (2002) compared the levels of burnout syndrome among nurses in different nursing specialties and the environmental factors that contribute to the development of burnout in Greek Hospitals. A sample of 233 nurses in five hospitals was selected. Study results indicated that nurses of emergency departments showed significantly higher levels of emotional exhaustion in comparison to nurses working in intensive care and internal medicine units. For the intensive care nurses, significant predictors included peer cohesion, control, involvement, and task orientation, while for the internal medicine nurses, significant predictors were involvement, workload, physical comfort, task orientation and autonomy. Finally, for the nurses of emergency departments, significant predictors included involvement, workload, innovation, supervisor support, age and task orientation. In conclusion environmental factors seem to have an impact to the development of nurses’ burnout. The Maslach Burnout Inventory (1996), The Work Environment Scale developed by Moos and Inse, and a general information questionnaire, recorded the demographic and professional features. There was a statistically significant correlation between burnout and of the study Ward of the Hospital ($p=0.026$) In particular, nurses who work in ICUs. The
predictors of burnout for nurses working in ICUs were the following: For the emotional exhaustion: low co-worker cohesion \((p=0.001)\) and inadequate managerial control \((p=0.005)\). For the depersonalization: low worker involvement \((p=0.001)\) and inadequate managerial control \((p=0.03)\). For personal accomplishments: age \((p=0.01)\), task orientation \((0.01)\) and managerial control \((p=0.03)\).\(^{81}\)

Kelly, Cross (1985) used comparative groups in order to examine job related stress and work burnout among nurses working in ICUs with nurses of other specialties who were working in two urban hospitals. They argued that the causes of stress were the noise levels, the physical environment and generally the work environment. The results showed that nurses who were not working in ICUs reported higher levels of burnout than those working in ICUs.\(^{82}\)

Stubbs, Rooks (1985) studied stress and work burnout among 296 nurses of four different nursing specialties (ICUs, internal medicine wards, surgery and psychiatry departments) in three hospitals. Even though the tension of occupational stress was much greater for workers in ICUs, it did not consist a forecasting factor for work burnout. Moreover, burnout in working environment among the members of the nursing personnel of the four different specialties was not statistically significant.\(^{83}\)

In a study by Kirkcaldy, Martin (2000) involving 276 nurses in a large hospital in Northern Ireland, a comprehensive set of questionnaires was administered to assess multiple job-related variables. Nurses in general appeared to display high scores on the stresses related to confidence and competency in role, home-work conflict, and organisational involvement (subscales which are themselves closely associated with
demands in social interaction at work). These are stresses which were related to psychological well-being. There were no gender differences on occupational stress or the health outcome variables. Age did emerge as significantly related to total stress and mental health (older nurses reporting more stress, and the younger nurses experiencing better psychological health). Grade of nursing was unrelated to job stress and outcome health variables, including work satisfaction. Although no differences were observed between wards/specialism and stress, differences were revealed along satisfaction, with maternity nurses (and intensive care nurses) displaying the highest level of satisfaction at work, and surgical (and medical) nurses showing the lowest. Finally, Type A emerged as a significant determinant of physical health, in contrast to internal locus of control, which was more related to mental health, (lower) occupational stress, and job satisfaction. No significant Type A locus of control interactions were observed.84

Lu, While, Barriball (2007) conducted a cross-sectional survey exploring nurses’ views and experience regarding their working lives in Mainland China. A total of 512 hospital nurses in Beijing participated in the study in 2004, representing a response rate of 81%. There was a negative relationship between nurses’ job satisfaction and intention to leave their current hospitals, which was mediated by age (p < 0·05). About 40% of the variance in job satisfaction could be explained by the set of independent variables including organizational commitment, occupational stress, professional commitment, role conflict, role ambiguity, educational level, age and working years (R² = 0·396). Organizational commitment had the strongest impact on job satisfaction, which explained 31·3% of the variance in this, followed by occupational stress and role conflict (5·5% and 1·9% respectively). In addition, both
nurses’ role perception and actual role content influenced job satisfaction as well as occupational stress, role conflict and role ambiguity (p < 0·05). Nurses’ educational level was also a factor related to role perception, professional commitment and role conflict (p < 0·05).  

Wu, Zhu, Wang, Wang, Lan (2007) studied occupational burnout among nurses in a sample of 495 nurses from three provincial hospitals in China. The Maslach Burnout Inventory – General Survey (MBI-GS,1996) was used to measure burnout, and the Occupational Stress Inventory – Revised edition(1997) was used to measure two dimensions of occupational adjustment (occupational stress and coping resources). After statistical testing for validity and reliability of the MBI-GS with nurses in China, participants’ scores were evaluated and analysed. Scores for burnout of surgical and medical nurses were statistically significantly higher than those of other nurses (p < 0·05). Lower educational status was associated with lower professional efficacy, and younger nurses reported higher levels of burnout. The most significant predictors of emotional exhaustion were role overload, responsibility, role insufficiency and self-care (p < 0·05). The most significant predictors of cynicism were role insufficiency, role boundary, responsibility and self-care (p < 0·05). The most significant predictors of professional efficacy were role insufficiency, social support and rational/cognitive coping (p < 0·05).

Gelsema, Doef, Maes, Janssen, Akerboom, Verhoeven (2006) carried out a study on the influence of changes in work conditions on stress outcomes as well as influence of changes in stress outcomes on work conditions. A complete, two wave panel design was used with a time interval of three years. The sample consisted of 381
hospital nurses in different functions, working in different wards. Researchers found that changes in work conditions are predictive of the outcomes, especially of job satisfaction and emotional exhaustion. The strongest predictors of job satisfaction were social support from supervisor, reward and control over work. The strongest predictors of emotional exhaustion were work and time pressure and physical demands. Reversed relationships were also found for this outcomes.  

Robat (2008) conducted a study to determine prevalence and risk factors associated with occupational stress among 504 nurses in the district hospital and health centres of Temerloh, Pahang. A self-administered questionnaire was distributed to each respondent. A Personal Stress Inventory and Nursing Stress Scale were used as the study instrument together with the sociodemographic and work characteristics. The prevalence of stress perceived by nurses was 25% (95% CI: 21, 29%). A significant association was found between stress and factors such as marital status, personal stressors and all occupational stressors subscales. Nurses perceived similar major sources of stress which were “Workload”, “Death and dying” and “Conflict with doctors”. The nurses who were in the hospital had significantly higher mean (p < 0.01) of total personal stressors and occupational stressors scores than health centre nurses. As for each units in the hospital, there was no significant difference for personal stressors scores (p=0.40) but for occupational stressors scores, nurses in the Medical (mean scores (sd): 26.61 (10.60); 95% CI: 24.58, 28.64), Critical (mean scores (sd): 25.80 (11.49); 95% CI: 23.14, 28.46) and Surgical units (mean scores (sd): 23.37 (11.49); 95% CI: 21.60, 24.94) showed significantly higher mean scores compared to other units (mean scores (sd): 18.28 (10.45); 95% CI: 15.21, 21.34). The finding suggested that sources of stress from Nursing Stress Scale subscales were
specific to units whereby certain units in the hospital perceived higher scores for certain occupational stressors. After multivariate analysis, “Personal stressors” (adjusted OR: 1.20, 95% CI: 1.13, 1.26) and “Conflict with doctors” (adjusted OR: 1.38, 95% CI: 1.23, 1.54) were independently associated with stress, but none of the demographic variables were found to be a significant predictor of stress.  

A cross sectional survey was conducted by Wong, Leung, Lam (2001) in which data were collected through mailed structured questionnaires from 269 subjects who were selected from the membership list of Hong Kong Nursing Staff. The questionnaire consisted of Nursing Stress Inventory (Numeroff & Abrams, 1984), Coping Strategies Scale (Tap, Esparbes & Sordes-Ader, 1992), General Health Questionnaire-30 (GHQ-30): and Personal characteristics of respondents. The assumption of a "Supervisor's Role" created the most stress for nurses in this sample. "Death-related Issues" also led to a great deal of the stress experienced by the nurses. Particularly, nurses found taking care of the young terminally ill patients and informing the family that their relative has just died to be stressful. "Organizational Environment" issues included meeting the demands of their supervisors and communication problems with management. Thirty seven percent of the sample had GHQ-30 scores greater than 6, indicating that they were at risk of developing poor mental health. Nurses felt that they could not concentrate on what they did, and were unhappy about the way they did things. "Anxiety Issues" included feeling constantly under stress and that life is a constant struggle. "Direct Action" coping strategies were the most frequently used among the five types. These included strategies such as trying to work harder, being more efficient, and reorganizing the work. The second most frequently used group of coping strategies was "Positive Thinking." These
included reminding oneself that one is equally competent to handle situation that others have succeeded in doing, and perceiving the difficult situation as one that gives opportunity for learning. Respondents also used "Avoidance/Resignation" to handle stressful situations. One such strategy was to try to tell oneself not to worry about the problems. Within the group of "Help-seeking Strategies," consulting with others (other than the boss) about ways of solving problems was the most frequently used strategy. However, it was found that "Alcohol Use" was the least frequently used group of coping strategies. One-way ANOVA showed that nurses with tertiary education had significantly better mental health, fewer depressive symptoms, and used more positive coping strategies than nurses with secondary school education. They also were better able to utilize help-seeking strategies than the ones with secondary school education (excluding the professional nursing training). F = 4.55, p < 0.05; F = 4.69, p < 0.05; F = 4.69, p < 0.05; F = 4.46, p < 0.05 respectively. Nurses holding administrative positions in the hospitals utilized significantly more direct action, help-seeking and positive coping strategies than nurses performing clinical duties( F = 7.24, p < 0.001; F = 9.93, p < 0.001; F = 7.93, p < 0.001 respectively). The intensity of stress experienced by nurses correlated positively and significantly with their mental health, as indicated by GHQ-30. Further analyses of the subscales revealed that anxiety, depression and overall mental health level correlated significantly with all subscales of stress, which included organizational environment, emotional aspects of care, death issue, supervisor's role and work demands. Generally speaking, the more the respondents used positive coping strategies, the better their mental health outcome (r = -0.21, p < 0.001). Similarly, the more respondents used negative coping strategies, the poorer their mental health (r = 0.238, p < 0.001). The Coping Scale contained several questions that might not be applicable to all
respondents; hence the number of responses to this scale varied. Those who chose "not applicable" ranged from 23 to 89 cases. Analyses of subscales revealed that direct action coping strategies were not related to any of the mental health subscales as indicated by GHQ-30. While fewer anxieties were related to more positive thinking and fewer avoidance coping strategies, fewer depressive symptoms were correlated significantly with more positive coping, more help-seeking behaviors and fewer avoidance coping strategies. The symptoms of social dysfunction were related to fewer positive coping strategies and more avoidance coping strategies. It could be concluded that positive coping strategies were consistently related to better mental health. In contrast, avoidance behaviors were consistently related to poorer mental health.17

Bianchi (2004) surveyed a representative sample of cardiovascular nurses to describe ways of coping, and identify sources of stress in the hospital setting. A descriptive and correlational survey design was used. A self-completed questionnaire was distributed to 76 nurses from a cardiovascular hospital in Sao Paulo City, Brazil. The measures were the Nursing Stress Evaluation Questionnaire (NSEQ) developed by the investigator Bianchi (2004) and Ways of Coping Questionnaire (WCOQ) by Folkman and Lazarus 1988). The results identified work conditions as the major source of stress for nurses and they used positive reappraisal, self-controlling skills, and social support to cope with job stress. Nurses are using coping strategies based on personal resources but the use of organizational strategies is encouraged to improve life quality.89
Another correlational study was conducted by Stacciarini, Bartholomeu (2004) among 461 nurses in Brazil to describe occupational stress, job satisfaction and state of health, and the relationship of these variables to a constructive thinking coping style. Instruments used were the Nursing Stress Inventory developed by the authors, Constructive Thinking Inventory by Epstein (1993), subscales of the Occupational Stress Indicator, by Cooper et al., (1988) and a researcher-designed questionnaire. Normal distributions were found for occupational stress, state of health (physical and psychological), and job satisfaction. Occupational stress was directly associated with state of health, and inversely associated with global constructive thinking and job satisfaction.\(^9\)

Albion, Fogarty, Machin (2005) conducted a study with 1097 employees (866 females, 217 males, 14 did not indicate gender) in a regional Health Service District who completed the Queensland Public Agency Staff Survey (1996). Nurses' results on measures of organizational climate and psychological outcomes were compared with those of other employees in the Health Service District. Nurses reported less favourable outcomes on all but one of the organizational climate scales, and also were found to have more distress (strain), and lower levels of morale, Job Satisfaction and Quality of Work life than others. Results were generally less favourable for nurses working in the large regional hospital and in mental health than for nurses in other facilities. The study has implications for recruiting and retaining nurses at a time when shortages within the profession are chronic.\(^9\)

Jaracz, Gorna, Konieczna (2005) determined professional burnout among hospital nurses and the analysis of correlations between burnout and a subjectively
perceived stress and coping styles in Poland. Study sample consisted of 227 nurses from general medical, neurological and psychiatric hospital wards. A set of 3 questionnaires was used, including Maslach Burnout Inventory (MBI, 1996), Coping Inventory for Stressful Situations (CISS) by Endler & Parker (1990a) and Subjectively Perceived Stress (SPS). Average and high level of burnout in the emotional exhaustion (EE), depersonalisation (D) and personal accomplishment (PA) was present at 71%, 39.8% and 77% of nurses respectively. A significantly higher level of burnout was noted in the subgroup of general medical nurses. The differences involved the total MBI score and the results of the subscales EE and D (p < 0.01). A significant correlation was found between the subjectively perceived stress and the level of burnout (r = 0.51, p < 0.01). Significant correlation was found between MBI scores and CISS scores. Correlation between burnout and a task oriented coping was negative and correlation between burnout and emotion oriented coping was positive. The correlation between burnout and a coping style is rather weak, but statistically significant.92

A descriptive qualitative research design was used by Khowaja, Merchant, Hirani (2005) to explore the registered nurses' perceptions regarding the high turnover rates among nurses at a Tertiary Care University Hospital, Karachi. Data were collected from a convenient sample of 45 registered nurses working at various speciality areas, such as Critical Care, Medical and Surgical Care, Ambulatory Care, Maternal/Child and Emergency departments. Findings of exit interviews were also included in the data analysis. The data analysis showed that the most dissatisfying factors at work and within the work setting were identified as: high workload, stress associated with high workload, biased Nursing Management, lack of appreciation and monetary incentives, finally a rigid attitude of Nursing Management. However, the
most satisfying factors were: working with an internationally reputable organization, patients' positive feedback and availability of required material or equipment. The study participants recommended that nursing retention could be improved by reducing workload by adequate nurse-patient ratios according to international standards, promoting respect of nurses in front of patients and other staff, rewards and recognition of nurses, simplifying nursing documentation, increasing recreational activities for nurses and empowering nurses and Nursing Management group.93

Scott, Hwang, Rogers (2006) carried out a study to identify fatigue and stress among a random sample 393 full-time hospital staff nurses in US who provided care for aging family members, and compared the results with nurses with and without children younger than 18 years living at home. Researchers also examined the differences in sleep duration, and explored the effects on work performance by care giving status during a four week period Hospital staff nurses recorded daily information concerning their work hours, errors, sleep/wake patterns, perceptions of fatigue, alertness, and stress and periods of drowsiness and sleep episodes while on duty for 28 days. Fatigue and stress levels were significantly higher among nurses caring for both children and elders. However, nurses providing elder care at home were more fatigued, sleep-deprived, and likely to make errors at work. These findings underscore the importance of restorative sleep interventions and fatigue countermeasures for hospital staff nurses involved in dual care giving roles. Limiting overtime and applying circadian principles to hospital scheduling processes would ensure a more alert workforce, minimize health risks for nurses, and maximize the safety of those in their care.94
Fagin, Carson, Leary, De Villiers, Bartlett, O'Malley, et al (1996) conducted three research studies on stress, coping and burnout 648 ward based mental health nurses in UK. All three studies used a range of self-report questionnaires. Measures included a demographic checklist, the General Health Questionnaire (GHQ-28, Goldberg, D1981), the Maslach Burnout Inventory(1996), the De Villers Carson Leary Stress Scale, Version 3 (DCL; Carson et al., 1994) and the Cooper Coping Skills Scale(1981). There were no significant differences between levels of psychological distress on GHQ Total Score, but there were differences in caseness rates. The main stressors for ward staff were to do with staff shortages, health service changes, poor morale and not being notified of changes before they occurred. Differences in coping skills were found across studies. The study group with the highest stress scores also had the lowest coping skills scores. This was also associated with significantly higher alcohol consumption and greater self-reported sickness absence. Scores on the Maslach Burnout Inventory showed higher levels of burnout amongst nurses. These three studies have confirmed that stress is a problem for ward based mental health nurses.95

LeSergent, Haney (2005) had undertaken a survey to identify stressful situations of rural hospital nurses and to examine their stress level in relation to coping strategies, particularly social support in UK. Eighty-seven nurses, aged 25-65 years, from rural hospitals completed the survey. Results indicated that while the stressors were similar to those identified in the literature for urban nurses and urban nursing students, the frequency and importance differed. Results also indicated a positive relationship between nursing stress and emotion-focused coping and between stress and social support.96
Han, Kim, Lee (2004) identified the factors influencing Symptoms of Stress among hospital staff nurses in Korea. Data were collected by questionnaires from 249 hospital staff nurses in three General Hospital and were analyzed using descriptive statistics, Pearson correlation coefficients, and stepwise multiple regression. The score of the symptoms of stress showed a significantly positive correlation with the score of work stress ($r=0.22$, $p=0.001$). The symptoms of stress showed a significantly negative correlation with the score of social support ($r = 0.28$, $p=<0.001$), self-efficacy ($r=-0.31$, $p=<0.001$), and hardiness ($r=-0.24$, $p=0.001$). The most powerful predictor of symptoms of stress was social support and the variance explained was 16%. A combination of social support, ways of coping, and work stress account for 32% of the variance in symptoms of stress among hospital staff nurses. The study suggested that social support, ways of coping, self-efficacy, hardiness, and work stress are significantly influencing factors on symptoms of stress among hospital staff nurses.

Pinikahana, Happell (2004) measured the level of stress, burnout and job satisfaction in 136 rural psychiatric nurses in Victoria, Australia using the Maslach Burnout Inventory (MBI), the Nursing Stress Scale (NSS) and Job Satisfaction Scale (JSS). The findings indicated that low number rural psychiatric nurses suffered from ‘high’ level of burnout and the majority of nurses reported ‘low level’ of emotional exhaustion and depersonalisation scores. On the personal accomplishment subscale, only 11% recorded a high score and 87% recorded low score. On the Nursing Stress Scale, the ‘workload’ was the highest perceived stressor followed by ‘inadequate preparation’. Paradoxically, the majority of rural psychiatric nurses stated that they were satisfied with their job, particularly with current situation at work, aspects of support and the level of involvement in decision making.
Chen, Lin, Wang, Hou (2009) conducted a study to determine the stressors, the stress coping strategies, and the job satisfaction of nursing staff who worked in the operation room (OR) and to evaluate influence of demographic characteristics on job stress, stress coping strategies, and job satisfaction. A cross-sectional research design was used to collect data from 121 nurses with more than 6 months of work experience at seven hospitals in Yunlin and Chiayi Counties. One hundred twelve questionnaires were returned, giving a response rate of 92.56%. The questionnaire included four parts designed to gather data on demographics and work-related information, job stress, stress coping strategies, and job satisfaction. Major findings of this study were as follows: (a) stress level and frequency perception of Operation Room nurses were significantly related to the type of hospital; (b) the most intense stressor perceived by OR nurses was patient safety; (c) the stressor most frequently perceived by OR nurses was administrative feedback; (d) although all job stressors were positively related to destructive stress coping strategies, professional status, patient safety, and OR environment were also positively related to constructive stress coping strategies; (e) factors including work rewards, OR environment, and administrative management of job satisfaction were inversely related to destructive stress coping strategies; and (f) factors including work rewards, OR environment, and administrative management of job satisfaction were inversely related to all job stressors.99

İlhan, Durukan, Taner, Maral, Bumin (2008) conducted a study to determine the burnout level and its correlates in nurses at a university hospital in Turkey. A total of 418 nurses answered a self-administered questionnaire including the Maslach Burnout Inventory (1986). All the nurses were female, with a mean age of 30.6 and a median age of 29 years. The mean score was 17.99 for the Emotional Exhaustion
Fazelzadeh, Mehdizadeh, Sahraeeian (2008) compared the levels of burnout among nurses in different nursing specialties. Using Maslach Burnout Inventory (MBI, 1986) and General Health Questionnaire (28-item version, 1981), researchers identified the psychiatric morbidity and burnout among 180 nurses. Majority of nurses were females (62.2%). The mean age was 34.8 ± 8.3 years. Most nurses were married (73.9%) with 0–6 children (2.05 ± 1.38) and they had a work experience of up to 10 years (2.8 ± 1.41). The educational level of nurses was a University degree (44%), whereas the majority of nurses (56%) were graduates of Technological Educational Institutions. Of the 180 participants who completed the GHQ, 77 (70%) met criteria for psychiatric morbidity (using a conventional case identification score of >4). The mean total GHQ score was 3.1 ± 4.6. There was a statistically significant correlation between burnout and the study ward of the hospital. In particular, nurses who work in psychiatry wards reported a higher degree of burnout. In total, 25% of participants met study criteria for burnout, [a high Depersonalisation (DP) score (>9), and/or high...
Emotional exhaustion (EE) score (>26), with 22.8% in the high EE range and 5% in the high DP range and 20.6% in the high Personal accomplishment (PA) score (>34). The MBI scores in different wards showed that Personal accomplishment score was significantly more in burn wards. (36.19 ± 2.31, p = 0.001), and DP was significantly higher in psychiatry wards (6.87 ± 0.7, p = 0.002). Male nurses were significantly more depersonalized than female nurses [mean DP score (SD) for males 4.86 (5.71), for females 3.02 (3.64), p = 0.001]. Participants who were single were significantly more emotionally exhausted than those who reported being in a relationship [mean EE score (SD), 19.5 (7.4) vs. 15.9 (7.6); mean difference 3.6; 95% CI, 0.4–6.8]. This was the only significant difference based on partnership status noted for any of the items measured. Nurses with more night hour’s work during the week were significantly more emotionally exhausted and more depersonalized (p = 0.000). When the sample was analysed in terms of risk of psychiatric morbidity (with a GHQ case-identification score of >7 to increase the specificity of the instrument), EE was strongly associated with risk of psychiatric morbidity. Participants meeting criteria for psychiatric morbidity had significantly higher mean EE scores (p = 0.001). A similar profile was observed when the conventional but specific case identification score of >4 were used. No significant association between risk of psychiatric morbidity and DP or PA was observed.101

Chang et al (2006) conducted a study to describe the relationships among demographic characteristics, workplace stressors, coping mechanisms, physical state of health, and mental state of health among Australian nurses. The sample consisted of 320 registered nurses who were listed on the New South Wales Nurses Registration Board (NRB) database. Participants had a mean age of 42.67 years (SD = 9.58 years,
range = 23–68 years). Demographic Data Questionnaire, Nursing Stress Scale (NSS) (Gray-Toft & Anderson, 1981), Ways of Coping Questionnaire (WAYS; Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986) and Short-Form (SF)-36 Health Survey Version 2 (Ware, Kosinski, & Dewey, 2002) were used to collect the data. The most common source of nursing stress was workload, followed by death and dying, uncertainty about treatment, and conflict with physicians and other nurses. The least reported stressors were, perceived lack of support and inadequate preparation. Planful problem solving was the most used coping strategy, accounting for 18% of the coping, followed by self-control (16%) and seeking social support (16%). Increased age and more years worked as a nurse significantly related to reduced physical health (r = 0.81). Number of years worked in the unit was significantly correlated with number of years having worked as a nurse (r = 0.47, p < 0.001). Plans to leave current job correlated negatively with mental health. More frequent stress from dealing with death and dying, conflict with physicians, conflict with other nurses, workload, and uncertainty about treatment was significantly, albeit weakly, correlated with reduced physical health. All sources of nursing stress were significantly correlated with diminished mental health, with some correlations (e.g., for lack of support) approaching moderate strength. Physical health was not significantly related to any of the coping scales. None of the coping strategies listed in the WAYS was significantly associated with better mental health. Age is the only individually significant predictor, with higher age being associated with poorer physical health. Significant individual predictors of mental health included the coping factors of escape–avoidance, lack of support, workload, distancing, and self-controlling as well as the demographic factor of years in the unit. No other individual predictor was significant. Mental health scores were higher for more years in the unit and distancing and lower for escape–
avoidance, lack of support, workload, and self-controlling. Seeking social support came just short of significance. \(^{102}\)

### Job satisfaction

Job satisfaction is the affective orientation that an employee has towards their work (Price, 2001).\(^{103}\) What makes a job satisfying or unsatisfying does not depend only on the nature of the job, but also on the expectations that individuals have of what their job should provide (Spector, 1997).\(^{104}\) Most published research from various countries indicates that job satisfaction is a major predictor of nursing absenteeism, burnout, turnover and intention to quit (Cavanagh, 1990; Gauci Borda and Norman 1997, Siu 2002, Yin and Yang 2002.\(^{105-108}\) Thus identification of the factors related to job satisfaction and exploration of their effects on job satisfaction have the potential to aid the development of employment strategies to improve retention and reduce turnover.

Lu, While, Barriball (2005)\(^{109}\) extensive review of the empirical literature revealed that nurses’ job satisfaction is related to working conditions, relationships within the work place, the work itself, praise and recognition, remuneration, self-growth and promotion, responsibility and job security as well as leadership styles and organizational policies. Nurse’s job stress and organizational commitment have strong relationships with job satisfaction.\(^{110,111}\)

AL-Hussami (2008) investigated the relationship of nurses' job satisfaction to organizational commitment, perceived organizational support, transactional leadership, transformational leadership, and level of education. The study took place
Chapter I

Review of Literature

at private, not-for-profit, nursing homes in the Southeastern United States. The study utilized the analytical procedure of multiple regression to determine whether organizational commitment, perceived organizational support, transactional leadership, transformational leadership, and level of education predict scores on the Nurses’ Job Satisfaction Questionnaire. The participants were randomly chosen by the directors of nursing from a list of nursing staff provided by each facility. A simple random sample was used to select 15 participants from each one of the four nursing homes. In addition to demographic information, the Nurses’ Job Satisfaction Questionnaire focused on respondents’ level of organizational commitment, job satisfaction, and perceived organizational support. All items of organizational commitment and perceived organizational support were responded to on a 7-point Likert scale. The items from job satisfaction were responded to on a 5-point Likert scale. Total scores on each measure were obtained by averaging across items. The dependent variable, job satisfaction was measured by a 20 item index called Minnesota Satisfaction Questionnaire (MSQ) short-form, developed by Weiss Dawis, England, & Lofquist (1967) with an estimated Cronbach’s alpha 0.91. The independent variable, organizational commitment, was measured by a 23 item index called Organizational Commitment Questionnaire (OCQ) developed by Meyer, Allen, and Smith (1993) with an estimated Cronbach’s alpha 0.85 Perceived Organizational Support was examined via a 16-item questionnaire called Survey of Perceived Organizational Support (SPOS) scale, developed by Eisenberger, Huntington, Hutchison, and Sowa (1986). The Cronbach’s alpha for these items was found to be reliable at 0.75. To evaluate the nurses’ perceptions of their administrators’ transformational and transactional leadership behavior, study participants were asked to respond to 18 descriptive elements of transactional and transformational leadership
behavior developed by Bass and Avolio (1992). The Multifactor Leadership Questionnaire (MLQ) Form 6S (Bass & Avolio, 1992) included 18 items to measure the four factors of transformational leadership and two factors of transactional leadership. Respondents were requested to answer the MLQ by rating how frequently their current immediate supervisor had displayed the behaviors described, using a five-point scale (1 = not at all; 2 = once in a while; 3 = sometimes; 4 = fairly often; 5 = frequently, if not always). Pearson product-moment correlations coefficients (r) were calculated to determine whether a relationship existed between the dependent variable job satisfaction and the independent variables, organizational commitment, organizational support, transactional leadership, transformational leadership behavior, and level of education. In addition, a multiple regression analysis was conducted to evaluate the predictive values of organizational commitment, organizational support, transactional leadership, transformational leadership behavior and level of education on the nurses' job satisfaction in health care organizations. All analyses were conducted at the 0.05 significance level. The research findings indicated that there was a strong correlation(r (55) = 0.93, p <0.05) between the nurses' organizational commitment and their job satisfaction. The correlation (r= 0.90) indicated that approximately 80 percent of the variance of job satisfaction was accounted for by the predictor, organizational commitment. Of all the independent variables, organizational support resulted in the highest correlation with job satisfaction. The results which indicated that approximately 85 % of the variance of job satisfaction was accounted for by the predictor, organizational support. These results suggested that the predictor, transformational leadership accounted for an estimated 80 percent of the variance of job satisfaction. A positive correlation was found between job satisfaction and nurses' level of education. Of the five measures of predictors,
organizational commitment, organizational support, transactional leadership, transformational leadership, and level of education, organizational support were most strongly related to nurses' job satisfaction. Supporting this finding is the strength of the bivariate correlation between organizational commitment, organizational support, transactional leadership, transformational leadership, and level of education, and the dependent variable, job satisfaction (0.90, 0.93, 0.08, 0.91, 0.34 (p <0.001)) respectively). Transactional leadership behavior was not found to be a significant predictor of job satisfaction. The results from the regression equation for the standardized variables were as follows: Predicted job satisfaction score = 18.160 + 0.198 (level of education) + 0.360 (organizational commitment) + 0.395 (organizational support) + 0.202 (transformational leadership) + 0.014 (transactional leadership).

Esther, Greenglass, Burke, Fiksenbaum (2002) examined the relationship between impact of restructuring, job satisfaction, job insecurity and absenteeism in nurses in Toronto. A self-report anonymous questionnaire was used to collect data. The respondents consisted of 1363 nurses employed in hospitals that were undergoing extensive restructuring. They were primarily women (94.8%), employed in 11 nursing units. Approximately two-thirds worked in medical/surgical, intensive care/coronary, emergency, and obstetrics units. One-half of the respondents worked part-time, working on average 31.28 hours per week (SD=10.53). Most of the nurses (83.2%) were diploma graduates (RN), and forty-five percent were supervisors. On average, nurses were employed 13 years in their current hospital (SD=7.68). Eighty percent of the nurses were married or living with someone. The average age was 42 years (SD=8.77), with age ranging from 23 to 66 years. Instruments used were Job
Satisfaction scale (Quinn and Shepard, 1974) Scale for Job Insecurity developed by the researchers, tool on Absenteeism and Impact of Restructuring Scale developed by researchers Job insecurity was inversely related to job satisfaction. Job insecurity was positively correlated with absenteeism and impact of restructuring. Job satisfaction was negatively correlated with absenteeism. In addition, job satisfaction was negatively related to the impact of restructuring. The impact of hospital restructuring had a direct impact on job insecurity ($r = 0.26, p< 0.05$) and a negative impact on job satisfaction ($r=-0.36, p<0.05$). Job satisfaction had a direct negative effect on absenteeism ($r=-0.11 p<0.05$) and a negative impact on job insecurity ($r=-0.17, p<0.05$). The impact of hospital restructuring exerted an indirect effect on absenteeism through job satisfaction ($r= 0.04, p< 0.05$). In addition, the relationship between the impact of hospital restructuring and job insecurity was mediated by job satisfaction ($r= 0.06, p< 0.05$). The total effect of the impact of hospital restructuring on absenteeism was $r= 0.04, p< 0.05$. The total effect of the impact of hospital restructuring on job insecurity was $r= 0.32, p<0.05$.

Piko (2006) investigated the interrelationships among burnout, role conflict and job satisfaction in a sample of Hungarian health care staff of two major hospitals in Szeged, Hungary. The study also investigated how these indicators of psychosocial work climate influence respondents' frequency of psychosomatic symptoms. A questionnaire survey (anonymous questionnaires) was carried out to detect these interrelationships. Questionnaires were distributed to 450 health care staff among which 55.7% were registered nurses. Altogether, 201 questionnaires were returned and analyzed, giving a response rate of 44.6%. Questionnaire contained items on work and health-related information (i.e., burnout, job satisfaction, role conflict, and
psychosomatic symptoms) and on some basic sociodemographics. Beyond descriptive statistics, correlation and multiple regression analyses were computed. Findings show that emotional exhaustion and depersonalization scores were higher, while scores on personal accomplishment was lower as compared to Canadian, Norwegian or US samples. Burnout, particularly emotional exhaustion (p<0.001), was found to be strongly related to job dissatisfaction. Schooling was inversely related to satisfaction with the job (p<0.05). While job satisfaction was a negative predictor of each type of burnout subscale (p<0.001), role conflict was a factor contributing positively to emotional exhaustion (p<0.001) and depersonalization scores (p<0.001).

Aronson (2005) assessed the job satisfaction of 546 nurses who worked in private psychiatric hospitals in Pennsylvania. Respondents rated their level of satisfaction on the 100-item survey by using a 5-point Likert scale: 1, poor; 2, fair; 3, good; 4, very good; and 5, excellent. Management's actions and attitudes demonstrated the largest mean correlation with all the other factors (mean of 0.64), including overall satisfaction (r=0.98). Therefore, management's actions and attitudes were found to strongly relate to other areas of job satisfaction for the RNs. Compensation demonstrated the lowest mean correlation with the other factors (r=0.31), including global satisfaction (r=0.46). Compensation is an area of satisfaction that is somewhat distinct from the other satisfaction dimensions.

Kovner, Brewer, Wu, Cheng, Suzuki (2006) examined the factors that influence the work satisfaction of a national sample of Registered Nurses (RNs) in Metropolitan Statistical Areas (MSAs) in New York. A cross-sectional mailed survey design was used. The sample consisted of RNs randomly selected from 40 MSAs in
29 states; 1,907 RNs responded (48%). The sample of 1,538 RNs working in nursing was used for analysis. The questionnaire included measures of work attitudes and demographic characteristics. The data were analyzed using ordinary least-squares regression. More than 40% of the variance in satisfaction was explained by the various work attitudes: supervisor support, work-group cohesion, variety of work, autonomy, organizational constraint, promotional opportunities, work and family conflict, and distributive justice. RNs who were White, self-perceived as healthy and working in nursing education were more satisfied. RNs who were more career oriented were more satisfied. Of the benefits options, only paid time off was related to satisfaction.\textsuperscript{116}

Mrayyan (2005) identified variables of Jordanian nurses' job satisfaction and retention. Comparisons were performed between three public and two private hospitals. A descriptive design using surveys, guided this study through convenience sample of 438 nurses. Nurses reported that they were 'moderately satisfied' in their jobs with 'neutral' opinion about their retention. Nurses who work in private hospitals were more satisfied and intended to retain their jobs more than nurses in public hospitals.\textsuperscript{117}

Sparks, Corcoran, Nabors, Hovanitz (2005) conducted a study among 152 nurses in Loveland, US to determine the job satisfaction and Subjective wellbeing (SWB). Participants completed measures of job satisfaction, SWB, and social desirability. The Dimensions of Satisfaction scale was designed for this study and demonstrated acceptable reliability and validity. Results indicated that the most important aspect to nurses' job satisfaction is pay, followed by staffing and benefits.
When entering the field, nurses most valued pay, followed by personal fulfillment and respect. A majority of the sample (59%) indicated satisfaction with their job, but this is well below the national average for American workers (85%; National Opinion Research Center, 2000).\textsuperscript{118}

Makinen, Kivimäki, Elovinio, Virtanen, Bond (2003) examined the relationship between methods of organizing nursing and employee satisfaction in Finland. Data were collected from 26 ward sisters and 568 nurses working in 26 bed wards with different stabilized nursing models. Methods of organizing nursing, such as primary, modular, team and functional nursing were associated with job satisfaction. However, this association involved only certain features of these organizational models and specific components of satisfaction. After the effects of demographic and ward characteristics were partialed out, hierarchical regression analyses showed that patient-focused work allocation, opportunity to write nursing notes and accountability for patient care contributed to nurses' satisfaction with supervision and personal growth. The relationships of duty rota and liaison with other discipline to job satisfaction were weaker or non-existing.\textsuperscript{119}

Rambur, McIntosh, Palumbo, Reinier (2005) compared job satisfaction and career retention in two cohorts of RNs, those whose highest degrees were the Associate Degree (AD) or the Bachelor's Degree (BS) in nursing. Instruments included a career satisfaction scale and questions based on the ongoing U.S. Health and Retirement Survey. Three-thousand nurses in the U.S. state of Vermont were surveyed with a resulting response rate of 56.7%. Of these respondents, 878 RNs fit the study criteria. BS RNs started their nursing careers earlier, were employed longer,
had held more positions, and were in the largest age cohort (age 40–54), were more likely to have been in their current positions at least 10 years. BS RNs scored significantly higher in job satisfaction related to opportunity for autonomy and growth, job stress and physical demands, and job and organizational security. AD and BS nurses were not significantly different in their satisfaction with supervision, career, continuing education, and promotion opportunities, or pay and benefits.¹²⁰

Sveinsdóttir (2006) described and compared the self-assessed quality of sleep, occupational health, working environment, illness experience and job satisfaction among female nurses working in different combinations of shifts. A cross-sectional design was used with a sample of 348 nurses drawn from the registry of the Icelandic Nurses’ Association, representing 17% of the workforce of Icelandic nurses. A self-administered questionnaire measuring occupational health, quality of sleep, the illness experience, job satisfaction and working environment was used. Data were analysed according to type of shift (days only, rotating days/evenings, rotating days/evenings/nights) by use of analysis of variance and chi-square. No difference was found between participants based on type of shift with regard to the illness experience, job satisfaction and quality of sleep. Nurses working rotating day/evening/night shifts reported a longer working day, more stressful environmental risk factors, more strenuous work and that they were less able to control their work-pace. In general, the nurses reported low severity of symptoms; however, nurses working rotating days/evenings shifts experienced more severe gastrointestinal and musculoskeletal symptoms when compared with others. This was explained by the short rest period provided for between evening and morning shifts.¹²¹
Kunaviktikul, Nuntasupawat, Srisuphan, Booth (2000) conducted a study to describe level of conflict, conflict management styles, level of job satisfaction and intent to stay, and to ascertain relationships among conflict, conflict management styles, level of job satisfaction, intent to stay, and turnover of professional nurses in Thailand. The sample was 354 professional nurses employed in four regional hospitals in Thailand. The findings showed that the overall level of conflict was at a moderate level. The majority of subjects used accommodation most frequently to manage conflict. Subjects were dissatisfied with pay but were neither satisfied nor dissatisfied with work, supervision, opportunities for promotion, co-workers and the job in general facets of job satisfaction. Most subjects had a high intent to stay in their present jobs for 1 year (97.1%) but intent to stay for the next 5 years decreased (78.5%). The result showed some relationships among these variables, but no relationship between intent to stay and turnover of professional nurses.

Bjork, Samda, Hansen, Torstad, Hamilton (2007) conducted a study to explore the relationship between job satisfaction and participation in a clinical ladder program and to explore relationships between several variables and intent to stay among hospital nurses in Norway. A secondary purpose was to investigate the use of a job satisfaction instrument in a different culture than its origin. In a cross sectional survey, 2095 nurses in four different hospitals answered a questionnaire that included demographic data, intent to stay and an Index of Work Satisfaction (IWS) covering the importance of and actual satisfaction with different job factors (Stamps and Piedmonte, 1986). Mean age of the participants was 37.5 years ranging from 21 to 72. Seven point nine per cent of the nurses were men. More than one-fourth of the nurses were single (28%) and nearly half of the participants had children living at home.
Approximately one-third of the nurses (32.9%) had graduated within the last 5 years. Average years of nursing experience in the hospital were 8.3 and the nurses had worked an average of 5.5 years in their present unit. There were significant differences in levels of job satisfaction related to age, education and number of years at the hospital and in the unit ($t=3.71$; $p<0.001$, $t=4.00$; $p<0.001$, $t=2.67$; $p=0.008$, $t=3.45$; $p=0.001$). Nurses intending to stay more than one year ($N=1214$) had a significantly higher mean total scale score of job satisfaction than nurses who planned to stay less than a year ($N=466$). (Mean score 201.29 vs. 189.43, $t=8.13$ and $p<0.001$). Further education was found to be positively related to intent to stay ($\chi^2=38.27$, $p<0.001$). Nurses with one day or more scheduled for professional development were more likely to stay ($\chi^2=9.91$, $p=0.002$). There was no significant difference between participants and non-participants in clinical ladders in their intention to stay ($\chi^2=0.58$, $p=0.45$).

Milisen, Abraham, Siebens, Darras, Casterlé (2006) investigated Belgian hospital nurses’ perceptions on work environment and workforce issues, quality of care, job satisfaction and professional decision making. All eligible nurses in a selection of 22 hospitals received the BELIMAGE questionnaire for a total of 13,958 potential respondents. Of these, 9941 returned study materials (response rate=71.2%) of which 9638 were valid and useable for statistical analysis (valid response rate=69.1%). The study identified several areas of tension in the nursing profession. The commitment to being competent providers of quality care was remarkably strong among the nurses, but they also perceived the barriers in the work environment to be multiple and complex. Concerns about the quality of leadership and management, insufficient staff, time demands and stressful work environment are experienced as
obstacles in providing good nursing care. Four out of ten nurses (39.2%) would not choose nursing again as a career and more than half of the nurses (54.3%) have contemplated leaving the profession at some point in time.\textsuperscript{124}

Al-Ahmadi (2002) examined the magnitude and determinants of job satisfaction in nurses working in Ministry of Health hospitals Riyadh, Kingdom of Saudi Arabia. A modified version of the Minnesota Job Satisfaction Questionnaire by Weis, DJ (1967) is used to survey 500 nurses in 9 Ministry of Health hospitals. Three hundred and sixty six nurses from different nationalities responded to the questionnaire (response rate 73%). Data analysis consisted of descriptive statistics, t-tests, one way-analysis of variance, correlation analysis, and regression analysis. In order to determine levels of overall job satisfaction among nurses, the means and standard deviations were calculated. Overall job satisfaction was measured in two different ways: first the average score of responses to all 25 items of the job satisfaction scale, then through the averages score of the global measure. Results show that overall satisfaction scores were similar when measured in both ways, and its value was 3.3 on a scale of 5, indicating that nurses have a moderate level of job satisfaction, or that they are "somewhat satisfied". One way analysis or variance and t-test were performed to determine differences in overall job satisfaction according to sample demographic characteristics. No significant differences in overall levels of job satisfaction were found according to gender, nationality, age, marital status, job tasks, and monthly income. Significant differences were only found according to education level at p<0.01. Results indicate that overall job satisfaction is significantly lower among bachelors’ degree holders than middle college graduates and graduates of the Health Institutes, and that it is also significantly lower among middle college
graduates than graduates of the Health Institutes. Patterns of association between overall job satisfaction scores and experience level (years of experience) were measured using Pearson product correlation. Significant but low positive correlation was found between the two variables ($r=0.21 \ p <0.01$) indicating that overall job satisfaction improves with time on the job. The highest satisfaction was found with their colleagues, while the lowest satisfaction was found with pay, and job advancement. Moderate satisfaction was found with the remaining specific job satisfaction subscales, indicating the need for improvement on most areas of job satisfaction. Results showed that a combination of several facets has a strong influence on overall job satisfaction. The largest variance in overall job satisfaction included six facets: recognition, technical aspects of supervision, work conditions, utilization of skills, job advancement, and pay.  

Mrayyan (2007) identified variables of Jordanian nurses' job satisfaction and intent to stay, compared the phenomena of interest in teaching and non-teaching hospitals, and correlated the two concepts of nurses' job satisfaction and intent to stay. A convenience sample of 433 nurses was obtained from three teaching hospitals and two non-teaching hospitals. Nurses reported that they were “moderately” satisfied with (1) coworkers, especially the immediate supervisors ($\bar{x}=0.27$), and (2) control/responsibility such as control over work ($\bar{x}=3.19$). Nurses reported that they were “neither satisfied nor dissatisfied” with (1) scheduling such as working on consecutive days (single shift; $\bar{x}=2.94$); (2) interaction through belonging to ward and institutional committees ($\bar{x}=2.92$); (3) praise/recognition opportunities such as recognition from peers ($\bar{x}=2.78$); (4) external rewards, particularly salaries ($\bar{x}=2.71$); and (5) family/work balance opportunities, especially maternity leaves. Nurses in non-
teaching hospitals were more satisfied than nurses in teaching hospitals with respect to the following: external rewards such as salary ($p = 0.002$), vacation ($p = 0.005$), and benefit package ($p = 0.001$); all aspects of scheduling ($p = 0.001$) and compensation for working on weekends ($p = 0.005$); family/work balance opportunities such as having a maternity leave, opportunities to work part-time ($p = 0.001$), and the provision of child care facilities ($p = 0.003$); coworkers, especially to the physician who work directly with the nurse ($p = 0.001$); all aspects of interaction opportunities ($p = 0.001$). Teaching and non-teaching hospitals were different in terms of nurses' opportunities to interact with the members of the nursing faculty ($p = 0.001$). Nurses were equal in their satisfaction about praise and recognition methods, whereas they were different in one aspect of control/responsibility opportunities; nurses in non-teaching hospitals had more control over what goes in their work settings than nurses in teaching hospitals ($p = 0.017$). Nurses in non-teaching hospitals intended to stay at their current jobs ($\bar{x} = 3.22$, $SD = 0.81$) longer than nurses in teaching hospitals ($\bar{x} = 2.86$, $SD = 0.80$; $p = 0.01$). Nurses reported that they will work at their present job for as long as possible ($p = 0.001$), that they will not quit their work even if their job does not meet their expectations ($p = 0.002$), and that they will spend the rest of their career at their present job ($p = 0.001$). The total score for nurses' job satisfaction was correlated with the total score of nurses' intent to stay ($r = 0.452$, $p = 0.001$), teaching hospitals ($r = 0.231$, $p = 0.001$), and non-teaching hospitals ($r = 0.143$, $p = 0.001$). These correlations were significant at an $\alpha$ level of 0.01.126

Ernst, Franco, Mesmer, Gonzalez (2004) conducted exploratory descriptive study to identify factors that describe nursing satisfaction in the pediatric setting in Miami. Among 249 nurses the ages of the respondents ranged from 22-58 years with
equal distributions for each 5-year group, except that there were fewer nurses in the 52-58 age groups. Ninety-one percent of the sample was female. Job Stress correlated significantly and inversely with age, years as a nurse, and years at the facility. Older nurses with more years of experience and with more years at the facility had less job stress than their younger counterparts. Pay correlated significantly and inversely with age, years as a nurse, years in the unit, and years at the facility. Older nurses with more years of experience, more years in the unit, and more years at the facility were less concerned with pay than their younger counterparts. Task requirements correlated significantly and inversely with years as a nurse. Older nurses showed less concern about task requirements than younger nurses did. Recognition correlated significantly and directly with hours worked per week. Older nurses reported receiving more recognition for the job that they did than their younger counterparts. Neither Job Satisfaction nor Interaction/Cohesion correlated significantly with any of the demographic variables. The correlations of Confidence and Time to Care with the variables in this study revealed a significant positive correlation between Confidence and Time to Care \((r = 0.318)\); that is, the more confident nurses had more demands upon their time. Confidence was significantly, positively correlated with age, years in nursing, years in the unit, and years at the hospital. Confidence and Time to Care were significantly and inversely correlated with the satisfaction scales. That is, the greater the confidence of the nurse and the more time demands on the nurse, the less the satisfaction. This negative correlation was particularly strong between Time to Care and Quality of Care \((r = 0 \cdot 788)\) and Time to Care and Task Requirements \((r = -0.712)\). There was little correlation between Confidence, Time to Care, and the Recognition scales. Neither Job Satisfaction nor the component Interaction/Cohesion
on the Work Satisfaction scale correlated significantly with any of the demographic variables.\textsuperscript{127}

**Self-esteem of nurses**

Westaway, Wessie, Viljoen, Booysen, Wolmarans (1996) investigated self-esteem and job satisfaction among 2,000 South African nurses. The objectives of the study were to: (1) ascertain South African nurses' satisfaction with their work, pay, promotion, supervision and co-workers; (2) compare job satisfaction of South African nurses with that of North American nurses; (3) determine levels of self-esteem; and (4) test the direct and indirect effects of self-esteem on job satisfaction. A postal survey was conducted on a random sample of nurses registered with the South African Nursing Council; 396 persons returned the questionnaires (Group 1). A subsample of 93 non-respondents was traced who agreed to complete the questionnaire (Group 2). Minimal differences justified combining the groups and conducting subsequent analyses on total sample scores. Nurses were most satisfied with supervision and co-workers and least satisfied with promotion and pay. Reliability coefficients for the five job satisfaction subscales and overall scale ranged between 0.79 (work) and 0.93 (overall scale). South African nurses were significantly less satisfied with all aspects of their jobs than their American counterparts. Coefficient alpha for the self-esteem scale was 0.72, 0.87 for the work-related needs scale and 0.80 for the social approval scale. High self-esteem nurses were more likely to attend to work-related needs in judging their job satisfaction than low self-esteem nurses. The best model for predicting job satisfaction was the linear incorporation of self-esteem and work-related needs.\textsuperscript{128}
Harue, Chiaki, Kahoru, Motoi, Satokok, Michio et al (2001) conducted a study on the self-esteem of nurses and its associations with years of experience, age, job satisfaction, and intention to work. A questionnaire was distributed to 3,895 nurses employed in the hospitals of G Prefecture, Japan and the 3,345 nurses who gave their consent were adopted as subjects of the study. The response rate was 85.9%. For analyzing the self-esteem of nurses in this study, data of only 2,712 (69.6%) registered clinical nurses were used, excluding midwives, public health nurses and licensed practical nurses. The results showed that the mean scores for self-esteem showed a tendency to rise significantly with years of experience. Nurses who were satisfied with their current job had higher scores for self-esteem and in terms of intention to work, the largest number of subjects replied that they wanted to continue working until retirement age, and they also had high scores for self-esteem. The above findings show close associations between nurses' self-esteem and years of hospital experience, age, job satisfaction, and intention to work in the future. The authors suggested that it is desirable for nurses to improve their self-esteem in their daily work. 129

Fothergill, Edwards, Hannigan, Burnard, Coyle (2000) conducted a survey of community mental health nurses (CMHNs) to determine their levels of stress, self-esteem, coping and burnout. A total of 301 CMHNs were surveyed in 10 National Health Service Trusts in Wales. A range of measures were used. These included the General Health Questionnaire (GHQ-12-1981), Maslach Burnout Inventory (MBI, 1986), Rosenberg Self-Esteem Scale (SES, 1965), Community Psychiatric Nursing (CPN) Stress Questionnaire (Carson, 1991), and Psychiatry Nurses’ Methods of Coping Questionnaire (McElfatrick et al 2000). The findings from the Rosenberg SES
are reported here. Community mental health nurses in Wales scored average self-esteem. When the data were divided into high and low self-esteem, a large group of CMHNs (40%) were found to have low self-esteem. Factors that are associated with low and high self-esteem were identified. Alcohol consumption and being on lower nursing grades (D, E, F) were associated with low self-esteem, whilst amount of experience working as a CMHN was associated with high self-esteem.\textsuperscript{130}

Noh, Sohng (1997) identified the self-esteem of nurses in Korea. These data were collected from 700 nurses in hospital setting by self-reporting questionnaire, Rosenberg's self-esteem scale (SES, 1965), Professional self-concept of nurses instrument (PSCNI) by Arthur (1995), from Dec. 1994 to Jan, 1995. The data were analyzed using descriptive statistics with SAS program. The mean of self-esteem was 30.74. The correlation between self-esteem and PSCNI was slightly moderate (\(r=0.57\)). The self-esteem of nurses was found to be significant by age (\(p=0.02\)), religion (\(p=0.0004\)), position (\(p=0.01\)). This study suggested that we need to identify the factors influencing self-esteem and to design programs to increase self-esteem.\textsuperscript{131}

**Psychiatric morbidity among nurses**

Yang, Pan, Yang (2004) identified the degree of job strain and investigated the association between job strain and the minor psychiatric disorders in hospital nurses. A total of 907 registered nurses were recruited for this study via stratified random sampling from hospitals in Kaohsiung, Taiwan. Each participant was requested to answer a structured questionnaire anonymously and a 98.1% response rate was achieved. The Job Strain Questionnaire was used to measure job strain. The minor psychiatric disorder was measured by the Chinese Health Questionnaire (1983) and a
cut-off score of 4 or more was used to identify subjects with minor psychiatric disorder. Results indicated that 24.5% of the nurses were in the high strain group and that those who were unmarried, had a lack of social support, and those with shift work were the most susceptible to high job strain. A total of 443 (48.8%) respondents were identified as having minor psychiatric disorder. Multiple logistic regressions revealed that high job strain, poor social support, and poor self-perceived health were the significant factors for nurses to have minor psychiatric disorder. These findings suggested that the best way to decrease the prevalence of psychological distress of nurses might focus on organizational attempts to reduce work stress, to develop effective health promotion programs and to give more assistance to nurses who have a managerial role.132

Arafa, Nazel, Ibrahim, Attia (2003) assessed psychological well-being of nurses in different job settings in Alexandria and identified sociodemographic, psychosocial and workplace predictors. A total sample of 412 nurses represented nurses working in five different health organizations in Alexandria. A self-administered questionnaire was used to collect sociodemographic, occupational and health data, and the Standardized Arabic Version of General Health questionnaire (GHQ-30 items), Job Descriptive Index by Smith, Kendall, & Hulin, (1969), and Social Support Scale (SSS) were also used. Results revealed that 21.67% of nurses recorded moderate to severe psychological symptoms on GHQ. Fewer years of experience, negative family and friend support, and negative total work satisfaction were found to be significant predictors of psychological ill health among nurses in a descending rank order.133
Bourbonnais, Brisson, Malenfant, Vezina (2005) conducted a cross-sectional study to examine the psychosocial work environment and the health of nurses after major restructuring in comparison with two reference populations in Canada. Study involved 2,006 nurses from 16 health centers. A questionnaire measured current work characteristics: psychological demands, decision latitude, and social support at work from Karasek's Job Content Questionnaire, organizational changes, and health effects. Prevalence ratios and binomial regression were used to examine the associations between current work characteristics, changes and psychological distress (PSI). There was a considerable increase in the prevalence of PSI and of adverse psychosocial work factors in comparison to the prevalence reported by a comparable group of nurses in 1994. These adverse factors were also more prevalent among nurses than among Quebec working women and they were independently associated with psychological distress. The conclusion drawn was the workplace interventions should be based on elements identified by many nurses as being problematic.134

The study by Yussuf (2007) compared the levels of morbidity in 3 groups of health professionals (Consultants, Residents, and Nurses) identified as having probable psychiatric morbidity (i.e., score of 4 and above on 30-item GHQ), to ascertain the most susceptible to psychiatric morbidity among these 3 groups of health professionals, and the possible risk factors for such susceptibility. This was a cross-sectional survey involving 563 health professionals (Consultants, Residents, and Nurses) in the University of Ilorin Teaching Hospital (UTH). Subjects were asked to respond to two questionnaires (socio-demographic/ work-related, and the 30-item General Health Questionnaire (GHQ-30)). Data of respondents with probable psychiatric morbidity (i.e., score of 4 or more on the GHQ) were analysed using SPSS
for Windows version 11, to generate frequency distributions and cross tabulation. Chi square figures, odds ratios, and relative risk were calculated; The level of statistical significance was set at 5%. The overall response rate was 71.8% (404/563): by groups it was 69.2% (54/78) for consultants, 70% (70/100) for residents, and 72.7% (280/385) for nurses. The mean scores on the 30-item GHQ were 1.76 (SD=2.8), 2.76 (SD=3.8), and 1.58 (SD=2.1) for consultants, residents, and the nurses respectively. The residents significantly scored higher than the consultants or nurses on the 30-item GHQ (F =5.99, p=0.003). Ten (18.5%), 18 (25.7%), and 50 (17.9%) with mean scores of 6.7 (SD=1.6), 7.7 (SD=4.7), and 5.2 (SD=2.1) of consultants, residents, and nurses respectively, scored 4 or more on the 30-item GHQ, and were considered as having probable psychiatric morbidity (F=5.7, p=0.005). Apart from other risk factors such as relationships with patients’ relatives, job experience, and unsatisfactory remunerations, the negative effect of work on the residents' family made them about 18 times more susceptible to developing psychiatric morbidity than consultants or nurses while female gender made the nurses about 16 times more susceptible than any of the other 2 professionals. The author therefore advocates establishment of a comprehensive stress management program in the health institutions, mentoring program to provide professional and emotional support to residents and other hospital staff, and collaboration with the Behavioural Sciences (Psychiatric) department, as well as adequate staffing/equipping of this department.  

Social support of nurses  

Ben-Zur, Michael (2007) conducted a study to (1) to compare stress appraisals, coping strategies, social resources, and burnout at work between social workers, psychologists and nurses; and (2) to assess the effectiveness of appraisals
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and support in reducing burnout and enhancing effective coping strategies in Israel. Questionnaires containing assessments of work stress appraisals, coping strategies used to deal with problems at work, and social support at work, as well as burnout measures of exhaustion, depersonalization, and accomplishment were completed by 249 female professionals (age range 25-61). No differences were observed between the three professions on most psychological measures, except for the depersonalization outcome of burnout, which was significantly lower among psychologists than among nurses or social workers. High challenge/control appraisal of the job was directly related to all burnout outcomes, contributing to less exhaustion and depersonalization and to more personal accomplishment. The challenge/control appraisal was also negatively associated with emotion-focused coping. By comparison, the stress/load appraisal contributed to more exhaustion at work, while emotion-focused coping contributed to higher depersonalization. Social support was associated with higher challenge/control appraisal, with the latter mediating support effects on burnout. These data suggest that the perception of challenge/control in one's work may be an important factor in preventing work burnout in the three professions tested in the study.136

The role of three sources of social support (family as kin, co-workers as insiders, and supervisors as outsiders) on the emotional exhaustion were analyzed by Albar, Marín, Ramírez (2005) in a sample of 210 nurses at a general hospital in Seville, a city in the south of Spain. They were given an adaptation of the Nursing Stress Scale, (Gray-Toff & Anderson 1981), the Multidimensional Support Scale (Winefield, Winefield, Tiggemann 1992), previously adapted in a sample of nurses and the emotional exhaustion scale of the Spanish version of Maslach's Burnout
Inventory (1996). The score of job stress is the variable which obtains the highest correlation with the emotional exhaustion factor ($r = 0.34, p < 0.01$), followed by the availability of co-worker support ($r = 0.30, p < 0.01$). Of the social-demographic variables, age, years of professional experience and number of children appear negatively related to emotional burnout ($r = -0.19; r = -0.15; r = -0.16, p < 0.05$). To test the predictions, a hierarchical multiple regression analysis for the emotional exhaustion dimension factor was carried out. To check the suitability of the analysis, absence of multicolinearity was tested. The independent variables were introduced using the stepwise method. To control the possible confusing effect, the first variable introduced was years of professional experience. Then stress was incorporated followed by availability of support sources. In a fourth step, the interactions of the variables of availability of support of the three sources and stress were introduced. At low levels of stress there is hardly any difference in levels of emotional exhaustion between nurses who report high levels of availability in support and those who report low levels. But, the situation is different when the stress is increasing. In this case, emotional exhaustion rises only among nurses with low scores in kin support availability.

Hamaideh (2008) conducted a study to describe the stressors of Jordanian nurses and the social support they received to decrease the influence of these stressors. The relationships between the two concepts, and each of them with sample's demographics were assessed. Predictors of nurses' stressors as well as social supportive behaviors were also studied. The Nursing Stress Scale (NSS) (Gray-Toft & Anderson, 1981) and the Inventory of Social Supportive Behaviors (ISSB) (Barrera, Sandler, & Ramsay, 1981) were used to collect data from a convenience sample of
464 Jordanian nurses who were working in 13 Jordanian hospitals. Results indicated that workload and dealing with issues of death and dying were the most prevalent stressors among Jordanian nurses. Emotional support was the most supportive social behavior Jordanian nurses reported that they usually receive. Significant correlations were found between nurses' stressors and social supportive behaviors; as well as between nurses' stressors and shift worked, level of education, and model of nursing care provision. Additionally, significant correlations were found between social supportive behaviors and commitment for work and units' decision-making style. Shift worked, nurses' educational level, and model of nursing care provision were the best predictors of the nurses' stressors. Shift worked, model of the nursing care provision, marital status, and unit's organizational structure were the best predictors of the social supportive behavior.

A cross-sectional study, was conducted by Rezaei, Ghaljeh (2009) among 373 nurses who worked in Iran University of medical sciences affiliated hospitals to determine the state of social support. The inclusion criteria were nurses who had no management experiences and at least had a six-month nursing experience. Data were gathered using a demographic form and the McCain and Marklin Social Integration Scale. Data were analyzed using SPSS 13. Eighty five percent of nurses mentioned that the support they receive from their coworkers, head nurses, and supervisors were moderate, high (10.7%), and low (4.3%), respectively. A significant association was found between social support and shifts. Perceived support from coworkers (mean=24.83) were more than perceived support from head nurses and the supervisors (mean=19.37).
Indian researches on study variables

Parikh, Taukari, Bhattacharya (2004) in their paper explored nurses’ occupational stressors and coping mechanisms. In nurses occupational stress appears to vary according to individual and job characteristics, and work-family conflict. Common occupational stressors among nurses are workload, role ambiguity, interpersonal relationships, and the death and dying concerns. Emotional distress, burnout and psychological morbidity could also result from occupational stress. Nurses’ common coping mechanisms include problem solving, social support and avoidance. Perceived control appears to be an important mediator of occupational stress. Coping and job satisfaction appear to be reciprocally related. Shift work is highly prevalent among nurses and a significant source of stress. The effects, moderating influences, coping mechanisms and risk factors associated with shift work are considered in detail here. Prophylactic and curative measures are important for nurses at personal as well as organizational levels. A significant correlation exists between overall nursing stress scores and psychiatric symptoms. Specific and acute work-related stressful experiences contribute to depression, whereas enduring structural occupational factors contribute to Psychological disorders.¹⁴⁰

Tankha (2006) carried out a study with the objective of studying the level of role stress experienced by nurses in government and private hospitals in Rajasthan. It was hypothesized that there will be a significant difference among male and female nurses working in government and private hospitals with regard to role stress. A sample of 120 nurses from government and private hospitals were selected randomly with equal number of males and females from both the government and private hospitals. The age range was 20–55 years. Subjects with minimum service of five
years and maximum of 25 years were in the sample. All the nurses were trained with a diploma degree in nursing. Organizational Role Stress Scale (Pareek, 1983) clearly showed that the male nurses have higher degree of stress levels as compared to the female nurses. More so the private hospital male nurses show the highest degree of stress levels. It also emerged that, the private hospital female nurses (Group C) do have higher mean scores on majority of the dimensions when compared to their counterparts in government hospitals (Group D). Nevertheless, they do not show any significant differences on any of the dimensions. More so, on some of the dimensions they have almost similar means. Thus the role stress experienced in by the male nurse was significantly high as compared to female counterparts and it increased if he was working in a private hospital.\textsuperscript{141}

Kane (2009) found out the extent of work stress in nurses in a hospital setting, identifying the major sources of stress, and finding the incidence of psychosomatic illness related to stress in Pune, Maharashtra. This study used a questionnaire relating to stressors and a list of psychosomatic ailments. One hundred and six nurses were included in the study. Stressors were based on four main factors: work related, work interactions, job satisfaction, and home stress. The factors relating to stress were given weights according to the severity. The total score of 50 was divided into mild, moderate, severe, and burnout. Stress levels were studied in 106 nurses covering all units of the hospitals. Fifty-six percent of the staff had more than 10 years of experience. Age and experience wise, this was a senior workforce. Significant stress of varying in severity was experienced by 73.59\% of nurses. Most important causes of stress were excessive workload, jobs not finishing in time because of shortage of staff, conflict with patient’s relatives, overtime, and insufficient pay. Back pain due to
standing for long hours, lack of exercise, and shifting patients can also decrease efficiency and increase absenteeism. Stiffness in the neck and shoulders seen in the nurses is largely due to continuous tensing of muscles due to stress. Sixty-six percent of the nurses were interested in training for new skills and 60% desired more training for their present job. Sixty percent of the nurses were not satisfied with their existing salary and benefits. Fear of exposure to Acquired Immunodeficiency Syndrome (AIDS) and Hepatitis while treating infected patients was a cause of stress. Home stress contributed significantly to the stress faced by nurses. Their home life was disturbed due to night shifts, overtime, transport delays, and difficulty in getting leave. Worry about children and their studies not being properly supervised were common. In spite of 60% of the nurses complaining of headache, it was not statistically proved to correlate with increasing level of stress. It could be due to lack of sleep because of the dual responsibility of work at hospital and at home. Acidity affected 62% of the nurses. Anemia was seen in 32% of the staff. This may be because of erratic meal times, missing meals because of overwork, and faulty eating and excessive consumption of tea and coffee during the night shift. From this study we can infer that acidity, anemia, backache, and stiffness in the neck and shoulders are related to stress at home and workplace. Emotional symptoms of forgetfulness, getting excessively angry, and worrying also significantly affected the nurses in this study. 142

The specific factors contributing to job satisfaction was studied by Ravindran, Sood (1996) among 75 staff nurses working in a large Delhi hospital using Muthayya's job satisfaction scale. The job satisfaction was expressed in terms of percentage of nurses who scored above mean value. Fifty three percent of nurses in
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general ward and 48 percent of nurses in specialty wards had their score value exceeding mean value, indicating a higher degree of dissatisfaction. A frequency distribution of select variables showed that the contributing factors were lack of technical information (53 percent), lack of facilities in work place (93 percent), lack of promotional avenues (76 percent) and low emoluments (71 percent). A low chi-square test showed no statistical significance in the levels of job satisfaction between general ward and specialty ward nurses.143

Bhatia (2010) conducted a hospital based cross sectional study on 87 randomly selected staff nurses working in two tertiary care teaching hospitals of Central Delhi. Data were collected using pre-tested and self-administered questionnaire. Sociodemographic profile, stressors in daily life, stressors at workstation and total stress level was also assessed. The data was fed and analysed using WHO's EPI-INFO 2005 software. The mean age of nurses participating in the study was 32.5 years (range - 22 to 41 yrs.) The mean age of nurses claiming that their jobs are extremely stressful was 33.71 years, whereas it was 28.73 years for those with stress free jobs. (p=0.14). The nurses had been working for an average duration of 7.8 years at the time of study. Also, nurses claiming their jobs to be stress free had been working for a mean duration of only 5.64 years as compared to 10.14 years (p=0.23) for nurses finding their jobs extremely stressful. Seventy (80.4%) nurses were married and 17 (19.6%) were unmarried at the time of study. An overwhelming majority of nurses (87.4%) found their jobs stressful with 32.2% (28/87) reporting severe or extreme stress. Similarly, in relation to stress in their daily life, 87.4% reported some stress while 28.7% (25/87) reported severe/extreme stress. However, there was not much difference in stress levels depending upon the type of
hospital (p=0.54). There was no significant difference in the distribution of job stress amongst married nurses (88.6%) and unmarried nurses (82.4%) (p=0.63). Only 35.7% of the nurses reporting severe or extreme job stress opined that if given a chance they would again choose nursing as their profession whereas of all nurses reporting extreme job stress, 57.1% (4/7) believed that they would not chose nursing as their profession if they had to do it all over again. On the other hand, only 1 out of 11 nurses reporting 'no job stress' wanted to change her profession (p=0.04). Out of the given possible coping strategies, most nurses resorted to positive strategies. While 34.5% reported that talking to people is the most effective strategy adopted by them in coping with stress, 57.5% resorted to not to avoid people in stress.

Summary

This chapter has dealt with research and non-research literature from various sources. The summary of the review is as follows:

Quality of life

Quality of life is a broad concept and can be defined in many different ways. QOL may be defined as subjective well-being. Recognising the subjectivity of QOL is a key to understanding this construct. Quality of Life is tied to perception of 'meaning'. The quest for meaning is central to the human condition, and we are brought in touch with a sense of meaning when we reflect on that which we have created, loved, believed in or left as a legacy. Three major life domains identified are Being, Belonging, and Becoming. The conceptualization of Being, Belonging, and Becoming as the domains of quality of life were developed from the insights of various writers. The extent of a person's Quality of life in the areas of Being,
Belonging, and Becoming and their sub-domains is determined by two factors: importance and enjoyment. Thus, Quality of Life consists of the relative importance or meaning attached to each particular dimension and the extent of the person's enjoyment with respect to each dimension.

Nurses’ quality of life

Factors affecting quality of life are job satisfaction, happiness of life, health status, and work stress. There is a positive correlation between job satisfaction and quality of life of nurses. Domain scores of Quality of life vary in different studies. Maintaining Quality of life is important for the nurses to provide comprehensive patient care.

Nursing and Stress/ burnout and coping

Stress is an internal state, which can be caused by many factors. Stress may be referred to as pressure that threatens the ability of the person to continue to function adequately. Stress can be caused by many factors. It could be physical, environmental and social factors that lead to stress. Workplace stress has long been recognised as a challenge for the nursing profession. Nurses experience greatest levels of stress compared to other health professionals. Nursing stress is associated with lower levels of job satisfaction, ongoing emotional and physical strain of long-term care clients and families and lack of management support in changing work roles. More frequent workplace stress predicted lower physical and mental health. Positive coping strategies are consistently related to better mental health. Differences in coping skills are found across studies. The best coping predictors of mental health are escape-avoidance, distancing, and self-control. A positive relationship exists between nursing stress and emotion-focused coping and between stress and social support.
Job satisfaction

Job satisfaction is a major predictor of nursing absenteeism, burnout, turnover and intention to quit. Nurses’ job satisfaction is related to working conditions, relationships within the work place, the work itself, praise and recognition, remuneration, self-growth and promotion, responsibility and job security as well as leadership styles and organizational policies. Nurses who work in private hospitals were more satisfied and intended to retain their jobs more than nurses in public hospitals. Concerns about the quality of leadership and management, insufficient staff, time demands and stressful work environment are experienced as obstacles in providing good nursing care. No significant differences in overall levels of job satisfaction were found according to gender, nationality, age, marital status, job tasks, and monthly income.

Self-esteem of nurses

There is close associations between nurses' self-esteem and years of hospital experience, age, job satisfaction, and intention to work in the future. Factors influencing self-esteem need to be identified, in order to design programs to increase self-esteem.

Psychiatric morbidity among nurses

High job strain, poor social support, and poor self-perceived health were the significant factors for nurses to have minor psychiatric disorder. The best way to decrease the prevalence of psychological distress of nurses might focus on organizational attempts to reduce work stress, to develop effective health promotion programs and to give more assistance to nurses who have a managerial role. Fewer
years of experience, negative family and friend support, and negative total work satisfaction were found to be significant predictors of psychological ill health among nurses.

**Social support of nurses**

Significant correlations exist between nurses' stressors and social supportive behaviors; as well as between nurses' stressors and shift worked, level of education, and model of nursing care provision. Also significant correlations are found between social supportive behaviors and commitment for work and units' decision-making style.

**Concluding remarks**

Review of the literature on nurses reveals that a great deal of research has been carried out relating to stress, coping and job satisfaction in nurses internationally. The researcher could not identify any comprehensive study on Quality of Life of Nurses and psychosocial variables affecting it. In India very few studies had been conducted on nurse’s stress and job satisfaction. Present study is unique in terms of variables under the study which are never researched together in one study.