Chapter III

Review of Literature
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REVIEW OF LITERATURE

Review of related literature is an important step in undertaking research. It helps in clarifying and defining the problem, stating objectives, formulating hypotheses, selecting appropriate design and methodology of research as well as interpreting the results in the light of the research work already undertaken. In this chapter, an endeavor has been made to provide an overview of various aspects of this study through the review of existing literature. The sources referred include various journals, books, doctoral theses, working papers, reports, magazines related to human resource, internet sites, newspapers etc. The literature study is meant to build a theoretical framework supporting the data gathering and results. This chapter will review the literature regarding the work life balance and the way these interact. In order to have a justified and in-depth review of the literature, the studies have been classified under the following headings:

3.1. Women at workplace
3.2. Critical care units
3.3. Work family interference
3.4. Consequences of work family interference
   3.4.1. Individual related outcome and work family interference
      3.4.1. A. Physical health
      3.4.1. B. Psychological health
      3.4.1. C. Sleep disorders
   3.4.2. Family related outcome and work family interference
      3.4.2. A. Marital & Family satisfaction
   3.4.3. Organizational related outcome and work family interference
      3.4.3. A. Job satisfaction
      3.4.3. B. Career satisfaction
3.5. Coping and strategies for work life balance
3.6. Life satisfaction
3.1. Women at Workplace

Research on women are of paramount importance because of the reason that the employment level of women are tremendously increasing and it is the responsibility of every Nation to help and support women to balance their work and life.

Ujvala, Swati Smita (2003)\(^1\); A report on Census survey of India of 2001 indicates that there are 935 women for every 1000 men in the country, making the female population about 38% of the total population. The working population constitutes about 36% of the total population and women constitute about 32% of the working population.

K. Awathappa (2006)\(^2\); Whether your top concern is equal pay or flexible hours, childcare or elder care, training for a new job or respect for the one you do now, certain working women face a challenge what you feel invariably affects how you behave.

Kiran Bedi (2008)\(^3\); Kiran Bedi found women as a new class of leaders can play a very transformative role in the society. There is a transformation in the way the educated and the professional women of today are bridging up and supporting their families, as they are now equal bread earners and also work out of home like the men. They are now at par with the men in professional skills and even financial returns.

K.C. Smitha (2009)\(^4\); India has been experiencing a transition towards achieving gender parity. The liberal feminism was to pressurize government for ensuring equal status to women at par with men and tries to explain the women’s position in society in terms of unequal rights to participation in the world beyond the family and household.

Nancy (2009)\(^5\); Historically, India has been a male dominated society. As more Indian women enter the workforce, this change is in dramatic contrast to the traditional Indian culture, where a woman’s expected role has been to marry, raise the family and take care of the household.

Kartikeya Batra (2011)\(^6\); Economies across the world are finding it increasing difficult to ignore women, rather it has become next to imperative to treat them as crucial components of the global system.
3.2. Critical Care Unit

The critical care unit (CCU) is a potentially hostile environment for the vulnerable critically ill patient and plays a prominent role of dealing with critical patients. Few researches about the critical care nurses are as:

Hay & Oken (1972)⁷; identified the intensive care unit environment and the psychological impact of working in an intensive care unit as two factors contributing to the stress experienced by ICU nurses. The intensive care unit (ICU) is a stressful environment due to high patient mortality and morbidity, daily confrontations with ethical dilemmas, and a tension-charged atmosphere.

Youngner et al., (1979)⁸; have described intensive care unit (ICU) as a stressful environment found that intensive care unit environment itself creates stress for nurses. Some of the research on stress in nursing has examined stress in relation to working in intensive care units. Nurses constantly experience a stressful environment because of the complex nature of patient’s health problems requiring an extensive use of very sophisticated technology can affect the competence and job performance of nurses.

Norbeck (1985)⁹: Noted that the working environment of Intensive Care Unit (ICU) is a constant source of stress for nurses working there. Critical care nurses practice in a complex assessment, high intensity therapies and continuous nursing vigilance.

Hipwell and Tyler (1989)¹⁰: He found little difference between specialized units (coronary care unit and renal unit) and non-specialized units (geriatric ward and general-medical ward) in the degrees of stress experienced. He found minimal difference between intensive care unit and non-intensive care unit surgical nurses on stress perception and anxiety, except that intensive care unit nurses experienced significantly more job-related sensory deprivation than non-intensive care unit nurses. There were also non significant unit differences.

Boumans & Landeweerd (1993)¹¹; However, a study done in Netherlands on 521 nurses did not agree with the idea that the work environment in intensive care unit is more stressful than a non intensive care unit. Some researchers have indicated issues related to death and dying of patients nursed closely with the hope of recovering as fully stressful for intensive care unit nurses.
Janseen et al., (1999)¹²; Organizational stressors could be physical, psychological and social in nature. Nurses working in environments where verbal and physical aggression is prevalent are more likely to experience psychological consequences due to increased job demand, nursing shortage, overload of work, lack of social support from colleagues, a lot of paperwork and high expectations from the superior, organization and next of kin of patients.

Kirchhoff et al., (2000)¹³; Kirchhoff conducted a qualitative study on critical care nurses’ perceptions of end-of-life care in the intensive care unit. Four focus groups were held with nurses from four intensive care units in two hospitals. Some common themes emerged as to what constituted “good” end-of-life care: adequate control of pain and discomfort, maintenance of dignity, family involvement, a clear prognosis and treatment plan, and continuity of care. Barriers to good care include conflict between and among family members and caregivers, uncertain prognosis, and lack of communication.

Cole et al., (2001)¹⁴; Cole reported that intensive care units are recognized as most stressful areas both for patients and nursing staff. While this author is saying death and dying are recognized as one source of stress for intensive care nurses. The stress associated with caring for the dying patient may result because ‘intensive care units have traditionally focused on providing care to the living, with often dramatic efforts to preserve life’. Intensive care nurses are predominantly socialized into the role as people who maintain and improve the lives of their patients, and stress results when they are unable to meet this expectation.

Buus- Frank (2005)¹⁵; In survey among nurses conducted by the American Nurses Association, 2%–5% of nurses work more than 60 hours a week, 28% work shifts that are 12 hours or longer, and in intensive care units (ICUs), 36% work more than 12 hours a day. With the ongoing national nursing shortage, these numbers are expected to increase.

Truog et al., (2008)¹⁶; said that intensive care unit are places where the sickest patients receive the most technologically sophisticated care, where the primary goals are to help patients survive, acute threats to their lives while preserving and restoring quality to their lives. Truog pointed that death of patients is common in ICU. Family centred care acknowledges that the patient is embedded within a social structure and web of relationships.
3.3. Work Family Interference

The impact work on family constantly changes over time. The purpose of this research was to discover and examine on the interference between work and family life of nurses in critical care. A few literature surveys on work family interference are as under:

Block (1973)\(^{17}\); Women are not more satisfied with their lives than their husband; it seems that their own level of life satisfaction depends on that of their partners. In contrast, men experience higher levels of work family interference, probably because they work more hours than their wives; this experience of work family interference, it makes them less satisfied with their life in general. Their life satisfaction is fairly independent from the life satisfaction of their partners and they seem to base their life satisfaction more on work-related matters. Men are expected to be individualistic, while women are socialized to have a nurturing, caring orientation.

Karasek (1979)\(^{18}\); says that there appear nine different psycho-social characteristics that relate to aspects of organizational function and culture, participation/decision latitude, career development, role in organization, job content, workload/work pace, work schedule, interpersonal relationships at work and work-home interface. The conditions which define the hazardous nature of workload/workplace include quantitative work overload, qualitative work overload, lack of control over workload, high levels of pacing, lack of control over pacing, time pressures, deadlines and sustained urgency in work.

Pleck et al., (1980)\(^{19}\); found work life conflict has been directly and positively related both to the number of hours worked per week, irregularity of shift work, and long commute times. Strain based conflict is caused when participation in one role makes participation in another difficult. Pleck found that ambiguity within the work role led to increased home conflict. Such conflict is also known as "negative emotional spillover".

Gore & Mangione (1983)\(^{20}\); disagree with the positive effects of multiple roles have argued that the work role has increased women's challenges at home, by adding to their aggregate workload and thereby increasing distress. Additionally, it is well documented that while multiple roles may have positive crossover effects, the crossover effects can be negative as well. Gore & Mangione point that the increased rates of psychological distress in married women who work outside the home suggesting that
female employment is related to negative outcomes such as family conflict, increased divorce rates, problems with children, decreased health, increased psychopath, and a host of other ills. Sleep deprivation techniques are used to provoke typical epileptic electroencephalographic discharges in patients under diagnostic evaluation for epilepsy.

Greenhaus & Beutell (1985)\textsuperscript{21}; Good work/family balance can contribute to better health, educational and social outcomes, increase the opportunities available for women in the workforce, and help men to spend more time with their families. Work-family conflict (WFC) is defined as a bi-directional relationship in which role pressures from the work and family domains are irreconcilable, thereby causing distress. The author determined three distinct types of conflict based on time, strain, or behavior. Because of the demands of conflicting roles, posit that time based conflict occurs when individuals may have the sense of not having enough time to meet work and family responsibilities.

Barnett and Baruch (1985)\textsuperscript{22}; Middle class women, have discrepancy in their psychological well being because of multiple role. Multiple roles positively offer increased opportunities for success, too, as well as buffering, added income, social support, increased self-complexity, and shared experiences. Multiple roles negatively offer those for failure, frustration, sexual harassment, and low wages. Therefore, while a slight positive correlation may exist between number of roles and satisfaction on multiple levels. Therefore it is the quality of one's role, and not the actual role that is held.

Hughes and Galinsky (1993)\textsuperscript{23}; Explains what causes work life conflict that role strain causes imbalances between roles that lead to varied effects, including increased psychopathology. Role strain is viewed as one of the culprits for increased work and family conflict for both men and women, though it is more frequently believed to be a greater conflict for women due to the social roles they inhabit in our society. He opined that the work role overtaxes women, who must go home and do a "second shift". She wrote that the changing demographics of the workforce are evidence that many people are unhappy at home, due to the "unrelenting demands" of housework and the "drudgery" of home and are dissatisfied with their marriages, families, or housework.

Reid et al., (1997)\textsuperscript{24}; comments that female shift workers are often under additional pressure to juggle domestic duties and raise any children they may have, all
while juggling their shift work schedule. This impact then has the potential to have a negative influence on family and social relationships. For many, the responsibilities of home life and the desire to spend more time with family members often take precedence over obtaining sleep, which is sacrificed in order to spend every available opportunity fulfilling family duties.

Russell (1999a)\textsuperscript{25}; In a large survey on the work family interference conducted in a large organization with a sample size of 3977 employees were asked both what family demands have an impact on their work and what work demands have an impact on their family life. The five most commonly mentioned family demands were: time pressures (37%); lack of time for social and recreational activities (33%); financial difficulties (23%); problems juggling work/family commitments with spouse (17%); and difficulties in their relationship with their spouse (15%). The five most commonly mentioned work demands were: coming home from work feeling stressed (53%); having to change work hours at short notice (33%); difficulties in relationships with co-workers (33%); coming home late from work (27%); and pressures from work deadlines (25%). These work demands were reported to have a significant impact on the following aspects of family life: generally poor quality family relationships (35%), not being able to plan family life (19%), not enough time for spouse (17%), not enough time for self (7%) and a high level of conflict with spouse (6%).

Spiegel K et.al., (1999)\textsuperscript{26}; In a controlled intervention study of work family interference, regular physical activity improved sleep in general, and alertness especially, during night shifts among nurses on an irregular shift schedule. The disruption of circadian rhythms may entail several pathways some of them also not involving sleep which inhibit obesity, cardiovascular and gastrointestinal diseases, and breast cancer.

E. Demerouti et al., (2001)\textsuperscript{27}; study on work-home conflict and home-work conflict concern conflicting demands made upon time and effort resources in the two domains. In addition, the study examines the impact of shiftwork on several organizational variables (i.e., job attitudes) and health indicators.

Mohren et.al., (2002)\textsuperscript{28}; There appears to be a clustering of hazardous exposures among shift workers. In his studies, shift workers more often report high physical
workload, occupational noise, high work pressure, lack of autonomy, low decision
latitude or control, emotionally demanding work, work conflicts and harassment by a
supervisor, colleagues or customers.

Stephen P. Robbins (2003)²⁹; “Employees are increasingly recognizing that work
is squeezing out personal lives and they are not happy about it. Studies suggest that
employees want jobs that give them flexibility in their work schedules so they can better
manage work-life conflicts Organizations that don’t help their people achieve work-life
balance will find it increasingly hard to attract and retain the most capable and motivated
employees. Research on work-life conflicts has provided new insights for managers into
what works and when. Time pressures are not primary problem underlying work/life
conflicts. It is the psychological interference of work into family domain and vice versa.

Wharton and Blair-Loy (2006)³⁰; refer to work-family conflict as a situation, in which
“the demands of the work interfere with fulfilling family responsibilities”. The role of
researchers is to explore the relationship between both domains in order to make sense of
the correlation and consequences that can follow when both interact with one another.
As the amount of hours have increased over the years, and are still continuing to do so, it
becomes harder to create a balance between work and family life, since demands and
availability for family life obligations are not getting any less.

Bellebaum KL (2008)³¹; Nurses are responsible for the safety of their patients.
Nursing factors such as long work hours and fatigue are concerns as they may affect
patient safety. This observation study took place at an academic medical center in
Columbus, OH. The medication administration process was observed in at three points in
time over a 12-hour shift: 0-2 hours (7-9am), 6-8 hours (1-3pm), and 10-12 hours
(5-7pm). More observational studies are needed to find medication administration errors.

Haines et al., (2008)³²; Haines cited several studies that pointed to an association
between shift work and “psychological distress, depression, anxiety and burnout.” Their
study focused on the possibility of work-family conflict: that shift work may interfere
with participation in family life, because of both scheduling and fatigue, which may
increase the risk of depression -family conflict. They first found a significant positive
association between shift work and work-family conflict; in the second, work-to-family
conflict was found to significantly raise the likelihood of depression.
Fuß et al., (2008) investigated predictors for work interfering with family conflict (WIF) which are located within the psychological work environment or work organization of hospital physicians (N= 296). The results indicated that the positive predictors of WIF conflicts (p<.01), number of days gone to work despite own illness (p<.01) and the frequency of postponing planned vacations and due to changes on the duty roster (p<.01). The results also indicated that high values of WIF were significantly correlated with high value of intention to leave, personal burnout and behavioural and cognitive stress symptoms. Negative relationships were found between WIF and life satisfaction, general health status and work ability.

Muhamad Khalil Omar (2010)“Work-life balance is fast becoming one of the defining issues of the current employment scene. Currently there is a shift from “work-family balance” to “worklife balance” to reflect the fact that non-work demands in people’s lives not necessarily limited to family only. A good work-life balance is when employees having the ability to fulfill both work and other commitments (family, hobbies, art, travelling, studies and so forth)”.

Julie McCarthy (2011) “Feeling drained leads to lower levels of satisfaction with life and higher rates of burnout, depression and ill-health. While playing multiple roles can be stimulating, interesting and lead to sense of accomplishment and achievement, McCarthy said, "There are real risks we need to be aware of. People need to assess which strategies they use to cope with their problems and make sure to making time for resource recovery".  

3.4. Consequences of Work Family Interference

The issues associated with balancing work and family are of paramount importance to individuals, the families that care for them, the organizations that employ them, the unions that represent them, and governments concerned, citizen well-being and national health. Numerous studies have been conducted on work-life balance and its consequences on individual, family and organisation are given here:

3.4.1. Individual related outcome of work family interference

The study of literature of the implication of work life conflict with physical health, mental health, and sleep disorder are given here:
3.4.1. A. Physical health

Graeber et. al., (1978)\textsuperscript{36}; said that the time of the day for consumption may affect uptake, digestion and metabolism depending on the phase of the individual’s circadian rhythms. Meal timing is considered as an important socio environmental synchronizer of the circadian rhythms and influences human metabolism. Further, the temporal distribution of food intake has also an influence on human performance.

Angersbach et al., (1980)\textsuperscript{37}; Angersbach found a slight but non significant excess of Cardiovascular disease morbidity among shift workers. The incidence has been noticed to be 13.8\% for the day workers and 16.8\% for the shift workers. The cholesterol level has been witnessed to be higher in shift workers compared to day workers. The workers with the most irregular working hours may tend to have significantly higher total cholesterol.

Costa et.al., (1981)\textsuperscript{38}; It is well known that the dietary intake is of immense importance to nutritional status and health. In addition to a balanced intake, the time of the day for consumption and the frequency of intake may also be equally important. Gastrointestinal complaints of gastric upset, disturbed appetite, gas, constipation, diarrhoea, poor eating, dyspepsia, epigastric pain, gastroduodenitis, peptic ulcer etc. are strongly correlated with shift work in a number of studies.

Rutenfranz et. al., (1985)\textsuperscript{39}; Rotating shift work has well-known harmful effects on human health and well-being. It disturbs sleep, wakefulness, eating patterns and social life and in the long run. Several authors have documented an association between shift work and gastrointestinal disorders. It can be argued that the gastrointestinal disturbances result from eating food at the wrong time, with abnormal patterns of gut motility and gastric acid secretion being likely.

Segawa K (1987)\textsuperscript{40}; The new "23-hour society" increases night work, together with new experimental and epidemiologic data on the alarming relationship of shift work to fatigue, performance, accidents, and chronic health effects like coronary heart disease, The incidence of peptic ulcer has been calculated to be from 2 to 5 times higher among shift workers with night work than among day workers. In addition, 20-75\% of shift workers complain of appetite disturbances, dyspepsia, abdominal pain, flatulence.
Simon (1990)\textsuperscript{41}; Shift work has been well studied and results show physical health problems of fatigue, sleeping, eating and/or digestion problems, higher accident rates at work, coronary heart disease, and mental health and relationships problems. The author includes workload and repetitive tasks as physical and psychosocial work factors. In home care work, the workload and repetitive tasks on the job are both physical and mental work.

Engels et al., (1996)\textsuperscript{42}; There is sufficient literature giving some support to the view that when there is a mismatch between workers’ physical strength and tasks required on the job, back injuries occur. Most back injuries among home health aides and nurses are due to patient-related activities, involving pushing/pulling of patients or materials.

Morrow (1998)\textsuperscript{43}; Acute & Emergency (A&E) nurses exposed to critical incidents and traumatic events may experience the following symptoms:

<table>
<thead>
<tr>
<th>Inability to concentrate</th>
<th>Anxiety or panic</th>
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</thead>
<tbody>
<tr>
<td>Periods of crying</td>
<td>Confusion, slowness of thought</td>
</tr>
<tr>
<td>Repetitive thoughts of the event</td>
<td>Irritability, restlessness, agitation</td>
</tr>
<tr>
<td>Workaholism, hyperactivity</td>
<td>Nausea or gastrointestinal upsets</td>
</tr>
<tr>
<td>Avoidance of reminders of the event</td>
<td>Anger, rage or blame</td>
</tr>
<tr>
<td>Difficulty returning to normal activities</td>
<td>Loss of judgment</td>
</tr>
<tr>
<td>Impaired decision-making</td>
<td>Difficulty sleeping, nightmares</td>
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<tr>
<td>Depression and withdrawal</td>
<td>Muscle aches and pains</td>
</tr>
<tr>
<td>Increased use of alcohol/drugs</td>
<td>Family and relationship problem</td>
</tr>
<tr>
<td>Increased colds, flu, and headaches</td>
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Boggild H et.al., (1999)\textsuperscript{44}; The association between shift work and cardiovascular disease is considered particularly valuable as risk factors in the environment of shift workers can only be eliminated but not the shifts themselves. There is strong evidence that shift work is a significant risk factor for coronary heart disease (CHD). According to a recent review of studies, shift workers seem to have about a 30% increase in CHD risk.

Bourdouxhe and Queinnec (1999)\textsuperscript{45}; found that on average 30% more diseases such as gastritis, gastric or duodenal ulcers, high blood pressure, chronic anxiety, asthma and allergies, back disorders, musculoskeletal problems, and severe obesity were
diagnosed more among former shift workers than among current shift workers. Shift workers tending to underestimate their health problems, is a common finding. These disorders are considered to be work related caused by work environment and work.

Ito H, Nozaki (2001)\textsuperscript{46}; This study was conducted among the 109 American nurses who all worked rotating night shifts. The findings were compatible with the possibility that 6 or more years of shift work might increase the risk of coronary heart disease in women. Findings showed that shift workers were have a 30\% increase in risk.

Costa (2001)\textsuperscript{47}; indicates that women can be more vulnerable to shift-work and night-work in relation to both their more complex circadian and infradian (menstrual) hormonal rhythms and to extra demands related to family life and domestic commitments. This includes disorders such as menstrual pains, abortion, interference with foetal development, premature and low birth weight.

Rawat DS (2003)\textsuperscript{48}; Rawat observed the following health problems among employees. 30\% of the respondent experience backache, 35\% experience continual tiredness, 50\% talk about digestive disorders, 60\% suffering from sleep difficulties, 15\% experienced sprains and strains, 10\% are diagnosed for clinical depression, frequent cold and cough is common among 55\%, a major chunk is suffering from high blood pressure i.e. 60\%, 50\% suffer from menstrual problems, 35\% are suffering from respiratory illness, 35\% of them complaint about pregnancy related problems.

Atkinson et. al., (2008)\textsuperscript{49}; said that the individual health is affected by the shift work with Increased risk of insomnia, chronic fatigue, anxiety and depression, cardiovascular and gastrointestinal problems, impaired reproduction in women, increased body mass, increased body mass index, prevalence of obesity, waist-to-hip ratio.

Eva Schernhammer (2011)\textsuperscript{50}; In a recent study, researchers at Brigham and Women’s Hospital (BWH) found that shift work may be associated with a reduced risk of skin cancer in women. Shift work has been associated with increased risk of cancers, gastrointestinal disorders, cardiovascular disease, and diabetes.

3.4.1. B. Psychological health

Mott et.al., (1965)\textsuperscript{51}; The shift workers have been shown to experience a number of psychological disturbances and family dysfunctions, as a result of which there is a
serious impact on the family and social life. The irregular work hours affect the whole family: the worker, his/her spouse and children. The displacement of the shift worker in time and space can result in domestic inconvenience, for the individual, spouse and other members of the family, and it could have detrimental effects on family relationships.

Gray-Toft & Anderson (1981a)\(^{52}\); Their study in medical, surgical, cardiovascular, surgery, oncology and hospice nursing in Hong Kong found that the major sources of stress experienced to be workload, death and dying and feelings of inadequacy in meeting the needs of the patients and their families. The authors identified seven major sources of stress: dealing with death and dying, conflict with physicians, inadequate preparation to deal with the emotional needs of patients and their families, lack of staff support, conflict with other nurses and supervisors, workload, uncertainty concerning treatment.

Cronin-Stubbs and Rooks (1985)\(^{53}\); they studied 296 nurses working on medical units, critical units, in operating rooms, or in psychiatric mental in three hospitals, and investigated stress, social support and burnout, and the relationship between them. He found that Critical care and medical nurse’s encountered occupational stressors more frequently and intensely than psychiatric and operating room nurses.

Dewe (1987)\(^{54}\); Studies of stress in nurses in New Zealand have identified several common sources of stress. These sources of occupational stress include:

- workload pressures due to insufficient time and resources to complete nurses tasks;
- pressures due to ambiguity and coping with changing responsibilities;
- pressures dealing with patients and relatives especially when patients are dying;
- pressures due to conflicting demands of work and home
- Organizational pressures due to lack of involvement planning & decision making.

Haider et.al., (1988)\(^{55}\); A recent study conducted by laboratory examined the effects of three-shift work schedules of shift workers on anxiety and mental health of their day-active spouses and children. The levels of anxiety were found to be significantly higher in spouses and children of shift workers compared to their counterparts sampled in the family of day workers. Also the status of mental health was significantly low among spouses of shift workers compared to their day-working counterparts.
Shift workers, in particular those with night work, have been reported to complain more frequently than day workers of symptoms related to chronic fatigue, nervousness, anxiety, sexual problems and depression, with consequent increased use of sleeping pills and tranquillizers. Such disturbances are connected in part to sleep loss and chronic fatigue (due to disruption of circadian rhythms), and in part to interference with family and social roles. Such interference with family roles (particularly for women) and some personality traits (e.g. neuroticism) can favour higher vulnerability to psychological disorders in some individuals. Among nurses, women shift workers complained more of psychological disturbances than women day workers and men.

French et al., (2000) identified nine sub-scales of workplace stressors that might impact on nurses. In no particular order, these are: conflict with physicians, inadequate preparation, problems with peers, problems with supervisor, discrimination, workload, uncertainty concerning treatment, dealing with death, and dying patients, patients/their families. Additionally, temporal changes in the sources of stress might also be anticipated, as working conditions are not static.

Makowiec-Dabrowska, et al., (2000) evaluated whether nurses can work in a 12-hour shift constituted an excessive physical workload and work stress for nurses. The study was conducted on 536 nurses working a 12-hour shift and 169 working in an 8-hour day shift. Their results concluded that the 12-hour system was, characterized by less significant physical workload but greater mental load the author has shown a clear and significant increase in self-reported psychological symptoms (such as depression, loss of self-esteem, difficulty in concentrating, etc.) in a group of nurses.

Van der Klink JJ et.al., (2001); Mental disorders such as major depression, anxiety disorders, and psychotic disorders are less common, but they can be induced or exacerbated by work stress. A variety of exposure types are associated with psychiatric morbidity. High physical demands, fast-paced work, adverse work schedules, role stressors, career insecurity, difficult interpersonal relationships, non stimulating jobs, and lack of autonomy have been associated with symptoms of anxiety and depression, several psychoses, and with substance use disorders. Mental disorders in the workplace depression have consequences for quality of life, the costs and utilization of health care, safety, and productivity.
Williams and Cooper (2002)\textsuperscript{60}; these authors suggested that stress could be a change in appearance, in behaviour and in habits. The following list describes some of the changes that may indicate that someone is suffering from stress as described as.

<table>
<thead>
<tr>
<th>Altered appearance</th>
<th>Altered habits</th>
<th>Altered behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of care in appearance</td>
<td>Eating more, eating less</td>
<td>Irritability</td>
</tr>
<tr>
<td>Looks miserable</td>
<td>Drinking more</td>
<td>Aggression</td>
</tr>
<tr>
<td>Looks tired</td>
<td>Smoking more</td>
<td>Mood swings</td>
</tr>
<tr>
<td>Looks nervous, apprehensive</td>
<td>Increased absence</td>
<td>Poor concentration</td>
</tr>
<tr>
<td>Looks agitated</td>
<td>More accident prone</td>
<td>Poor decision-making</td>
</tr>
</tbody>
</table>

Fukukawa Y et. al., (2003)\textsuperscript{61}; A Japanese study that examined the short-term effects of shift work on mood changes in 1,608 female nurses working on rotating 3-shift schedules observed changes in subjective fatigue, activity and confusion, especially when shift changes occurred. The changes of mood were contingent on changes of sleep hours; however, since they were also observed after adjusting for the effect of sleep hours, other factors than irregular sleep pattern affect the mood of nurses working rotating shifts.

Lee (2003)\textsuperscript{62}; Stress is recognized as an inherent feature of the work life of nurses, and growing evidence suggest that it may be increasing in severity. Numerous studies have indicated that job stress is significant in nursing. The job stress of nurses working on acute and specialized care units has been widely studied. Heavy workload, poor staffing, dealing with death and dying, inter-staff conflict, strain of shift work, careers, and lack of resources and organizational support have been identified as the major sources of job stress. With regard to the sources of stress, the study conducted by Lee (2003) reveals that ‘workload’, ‘inadequate preparation’ and lack of support’ are the most common stressors among nurses who are working in primary care settings in Hong Kong.

Laposa et al., (2003)\textsuperscript{63}; listed the following six occurrences in the emergency department as most upsetting events:

- Providing care to a patient that is a relative or close friend and is dying or in a serious condition
• Physical assault of self / Death of a child
• Multiple trauma with massive bleeding or dismemberment
• Providing care to a traumatized patient that resembles oneself, a family member or friend in age or appearance; and
• Caring for a severely burned patient

Jezuit D (2003)\(^64\); found working as nurse increases the risk of experiencing both minor psychiatric morbidity with job strain. Minor psychiatric morbidities include feelings of tension, anger, anxiety, depressed mood, mental fatigue, and sleep disturbance; classified as burnout, sub threshold depression or adjustment disorders.

Suzuki et al. (2003)\(^65\); Measuring the actual mental health status among nurses and analysing the association with medical errors was the aim of the study. The survey amongst female nurses in eight Japanese hospitals found four types of accidents mostly reported as drug administration errors, incorrect operation of medical equipment, patient identification errors and needle stick injuries. Mentally poor health was significant for all four error types with shift work being an influential factor on the error rate.

Wieclaw J et.al., (2005)\(^66\); identifies that working as nurse increases the risk of experiencing both minor and major psychiatric morbidity with job strain. Minor psychiatric morbidities include feelings of tension, anger, anxiety, depressed mood, mental fatigue, and sleep disturbance; these are classified variously as burnout, sub threshold depression, or adjustment disorders.

Mealer et al., (2006)\(^67\); studied the psychological effects on critical care nurses related to their work environment that is relatively unexplored. Critical care nurses are repeatedly exposed to work related stresses in the ICU including addressing specific needs at the end of life, performing cardiopulmonary resuscitation, post-mortem care, and prolonging life by artificial support to critically ill patients.

Jettinghoff & Houtman, (2009)\(^68\); Work-related psychosocial risk factors which are typical for the health care sector include; high expectations combined with insufficient time, skills and social support; confrontation with pain; dealing with dying people; emergencies; exposure to traumatic events; complaints and litigation.
Karatzias et al.,(2011)⁶⁹; Studies to meet the criteria for designation as a “well-established treatment” include phobias and test-taking anxiety. Protocols appear to meet the criteria for designation as a “probably efficacious treatment” for PTSD and depression.

3.4.1. C. Sleep disorders

Kogi & Ohta (1975)⁷⁰; the adverse effects of sleep loss on human performance are widespread throughout industries that require shift work. Surveys, observational data, and anecdotal incident reports reveal that shift workers often experience sleep episodes, particularly during night shifts and sustained operations. Sleep disorder can lead to deterioration in performance capability.

Angersbach et.al., (1980)⁷¹; It is well known that humans sleep during the night and remain awake and active during the day. Therefore, human mind and body have not been evolved to cope with the burden of shift work at night work schedule. Shift work can lead to a host of problems attributed to the disturbances of the circadian system in some people. Health problems due to shift work can be classified as: disturbances of sleep, impaired physical and psychological health, and disturbed social and domestic life.

Estryn (1990)⁷²; Estryn established the facts that shift duty leads to fatigue and sleep impairment. He attributed social and health problems to shift work for those who engage in it. As such it is very stressful when individual nurses are not using good coping responses to adjust to the demands of shift work.

Carskadon et.al., (1991)⁷³; Conflicts between the endogenous circadian system and environmental time cues affect entrainment and those working shifted schedules are not able to adapt to schedule changes quickly. Performance levels and sleepiness are worsened due to the effects of sleep loss. However, research has shown that significant decreases in neurobehavioral performance can occur when sleep/wake patterns are disrupted as slowed reaction times, cognitive slowing, and deficits in frontal lobe functioning, degradations in response accuracy and sleep, short-term memory difficulties.

Dinges (1995)⁷⁴; Excessive sleepiness is also referred to in terms of a decreased capacity for physical and/or mental work. The most important consequences of sleepiness for shift workers are related to quality of life, decreased production, and increased potential risk of accidents and injuries during working hours.
Pilcher et. al., (1996)\textsuperscript{75}; Excessive daytime sleepiness has been cited as an important occupational health issue in hospital nurses, and it has been suggested that the tiredness and sleepiness brought about by sleep disorders might be associated with occupational accidents and depression.

Takahashi, Arito and Fukuda (1999)\textsuperscript{76}; who conducted a study with nurses, examined the effects of both the timing and the length of a two-hour nap during a 16-hour night shift. They suggested that, for napping during long shifts to be effective, the nap length should be carefully determined. This would avoid persistent inertia. They found that pre-nap levels of ‘sleepiness’, ‘fatigue’ and ‘dullness’ were enhanced instantly after the nap had been taken. Thereafter, however, ‘sleepiness’ lessened considerably, while the other effects returned to their ‘pre-nap state’.

Pilcher, Lambert and Huffcutt (2000)\textsuperscript{77}; Sleep disturbance was one of the major complaints specified by nurses who worked night shifts. The accumulated effect that the lack of sleep over long periods on the night shift suffered the most damaging effects compared to those who worked the morning and evening shifts.

Fass et.al., (2000)\textsuperscript{78}; Sleep disturbance is a common symptom estimated 50% or more of American adults experiencing one or more symptoms that indicate insomnia at least a few nights per week. Insomnia, in turn, causes significant morbidity, as evidenced by the increased need for general medical and mental health treatment for emotional problems. Conceivably, abdominal pain could be of sleep disturbance.

Ohida et. al., (2001)\textsuperscript{79}; A cross-sectional study conducted in Japanese hospitals in young female nurses found no significant association between the frequency of night shifts and sleep disturbance. Occupational sleep disturbance was defined as a complaint of insomnia or excessive sleep associated with work periods (usually at night), occurring during normal sleeping hours. The chief complaint in sleep disturbance is the feeling of unfreshness upon awakening and difficulty in staying awake in the post-shift period, particularly when the major sleep period starts in the morning between 06:00 and 8:00.
Belenky et al., (2003)\textsuperscript{80}; Research indicates, that as sleepiness increases, alertness and vigilance deteriorate, problem solving & reasoning abilities slows, psychomotor skills decline, and the rate of false responding increases. In turn, this can lead to increased error and greater risk of accident, and, ultimately, can threaten work safety.

National Sleep Foundation-America: NSF (2003)\textsuperscript{81}; A hospital based survey on shift work, sleep, and accident carried among 635 Massachusetts nurses. In comparison to nurses who worked only day/evening shifts, rotators had more sleep/wake cycle disruption and nodded off more at work application of circadian principles to the design hospital work schedules may result in improved health and safety for nurses & patients.

Belenky et al., (2003)\textsuperscript{82}; Sleep loss degrades performance from the simplest to the most complex behaviors. Alertness and performance are mediated in large measure by three factors: sleep/wake history, the endogenous circadian rhythm, and workload. Alertness and performance fluctuate across the 23-hour day in synchrony with—but lagging by approximately 3-3 hours— the circadian rhythm in body temperature. When the circadian rhythm is disrupted due to changes in light exposure relative to the habitual sleep period (e.g., night shift work, travel across time zones) sleep, alertness and performance are impaired. In shift work or during abnormal work hours, circadian sleep/alertness tendency and work/sleep schedule results in chronically reduced performance and alertness during the night shift and inadequate sleep during the day.

Ayas (2003)\textsuperscript{83}; It is tempting to suggest that short or disturbed sleep, related to insufficient recovery could be a common pathway connecting both night and shift work, extended work hours, and work stress to adverse cardiovascular health. Shift work, work stress, excessive work hours and overtime are related to shortened sleep and a greater need for recovery. Work demands and control, based on the job-strain model, have a strong cross sectional relationship to insomnia, sleep deprivation, and daytime fatigue independent of work hours and lifestyle factors like physical activity, smoking, and alcohol consumption.

Landrigan et al., (2003)\textsuperscript{84}; Good sleep hygiene includes monitoring hours of sleep on both working and nonworking days and nights. To avoid chronic sleep deprivation, healthy adults should obtain approximately 8 hours of sleep per day. Even when rested,
working long and irregular hours, particularly at night, can disrupt the circadian rhythm. Disruption may be reduced if the individual has an opportunity to sleep in the afternoon before working overnight. Additional prevention strategies include minimizing shift rotations and scheduling rest days in between scheduled shifts are essentially insisted.

Vgontzas et. al., (2003)\textsuperscript{85}: Health and safety are paramount within health care delivery. It is well known that individuals experiencing sleep deprivation and fatigue pose serious health and safety risks to others and themselves because of motor impairments and mood disturbance. Even modest sleep restriction (a reduction from 8 to 6 hours per night for one week) in young, healthy, normal sleepers leads to significant sleepiness, psychomotor impairment, and increased secretions of pro inflammatory cytokines. A large majority of nurses are female, and shift work adversely affects females more than males, making this target group especially vulnerable to the impact of insufficient or disturbed sleep is high.

Czeisler (2005)\textsuperscript{86}; when people consider the challenges associated with shift work, sleep difficulties are typically one of the first issues identified, since the majority of shift workers complain of disturbed sleep and overall sleepiness. Overall sleep is disrupted with shift workers complaining of both initial (difficulty falling asleep) and middle (difficulty staying asleep) insomnia, although middle insomnia is more frequently reported. This results in the shift worker experiencing continuous partial sleep loss, which can accumulate into a chronic state of sleep deprivation. Sleepiness levels can continue over successive days or weeks and the individual is likely to accumulate a sleep debt.

Smith et al., (2005)\textsuperscript{87}; Moreover, due to sleep time irregularity, other problems can also occur, such as decreased professional performance, social and marital conflicts, mood changes, serious traffic or work accidents, increased cardiovascular disease/systemic high blood pressure, and even serious psychiatric diseases and disorders.

Wittmann et. al., (2006)\textsuperscript{88}; Sleep/wake patterns, hormone levels, and physiological processes such as core body temperature and heart rate are controlled by a daily biological clock. When behavior and sleep/wake patterns are out of sync circadian misalignment can result. These results suggest that identifying factors that contribute to poor sleep timing and sleep quality of night shift workers could be important for ameliorating their health and adaptation to the night shift.
Hobson (2007)\(^9\); Although sleep functions are not completely known yet, it was assumed for several decades that brain activity was widely reduced or absent during sleep. It emphasizes that even during sleep the brain is 80% active, such nuclear power that sleep is an active process of neuronal reorganization.

Karl Doghramji (2008)\(^9\); found sleep/wake disorders sleepiness have been associated with serious consequences, including increased risk for motor vehicle crashes and medical errors. This monograph will focus on diagnosing, screening, and treating four common sleep/wake disorders:

- Insomnia
- Obstructive sleep apnea (OSA),
- Circadian rhythm sleep disorders and
- Restless legs syndrome (RLS).

The most commonly reported sleep-related symptoms are insomnia and excessive daytime sleepiness (EDS).

Golub R. M. (2012)\(^9\); Insomnia, or sleeplessness, is a sleep disorder in which there is an inability to fall asleep or to stay asleep as long as desired. While the term is sometimes used to describe a disorder demonstrated by evidence of disturbed sleep, insomnia is often practically defined as a positive response to either of two questions: "Do you experience difficulty sleeping?" or "Do you have difficulty falling or staying asleep?" Insomnia is most often accompany several sleep, medical, and psychiatric disorders characterized by a persistent difficulty falling asleep and/or staying asleep or sleep of poor quality.

3.4.2. Family related outcome of work family interference

Marriage and family, the two social institutions with biological foundation, are complementary to each other. The review was done chronologically to endeavor the extent of the knowledge contributions on this study area and to highlight possible research direction in line with marriage and family satisfaction.
3.4.2. A. Marital & Family satisfaction

Locke, Harvey J. (1951)\textsuperscript{92}; proposed that partners who spend more leisure time together is more likely to have satisfying relationships.

Spanier (1976)\textsuperscript{93}; says there are four key indicators of the quality of close/spousal relationships (i) the extent to which there is consensus on key relationship issues (e.g. philosophy of life, recreation, friends); (ii) the level of satisfaction with the relationship; (iii) the level of relationship cohesiveness and (iv) agreement and satisfaction with the expression of affection. Findings from many studies conducted over the past 30 years tend to support this conceptualization. The five most commonly mentioned factors for each question for both women and men were: Wreck a marriage: "neglect and bad communication"; "selfishness and intolerance"; "infidelity and jealousy"; "poverty, money disagreements"; and "conflicting personalities, no common interests". Make a happy marriage: "give and take, consideration"; "comradeship, doing things together"; "discussing things, understanding"; "mutual trust and help"; and "love and affection".

Chaya S. Piotrkowski (1979)\textsuperscript{94}; The time shift workers have to spend with their spouses can also be severely curtailed by hours of work, because a shift worker's wife or husband who works during the day or not at all is often awake at precisely those times when the shift worker must sleep. Spouses who wish to spend time with a mate who works during the evening or night usually have to alter their patterns of sleep, mealtime, and recreation to accommodate the shift worker's atypical schedule. Families may have difficulty just keeping track of the schedule of a shift worker in the family and knowing when the worker will be available for meals, social activities, or special events. Sexual activity is still another aspect of family life that is sometimes disrupted by shift work."

Cowan et al., (1985)\textsuperscript{95}; alternatively, marital satisfaction may fall because women’s expectations for equitable work – family arrangements after the arrival of a child are not met. Typically, the transition to parenthood leads to increased traditional family roles, where women focus more on domestic tasks, focus less on work outside the home, and become more financially dependent on their husbands; at the same time, husbands often increase their focus on work outside the home. If women experience
family role traditionally as restrictive or unfair, then we expect that increases in housework and decreases in labor-force participation account for declines in marital satisfaction during the transition to motherhood.

Baruch, Biener, and Barnett (1987)\(^9^6\); argue, the major stressor for wives and mothers is their obligation to “see to it that another person—spouse, child—is well and happy”. Authors have found the impact of job factors on home and family life is lower when higher emotional support are provided by partners in dual-career relationships.

Hill (1988)\(^9^7\); The majority of studies that followed have found similar results; the more leisure hours (or in some cases any type of time) one spent with their partner, the healthier in their relationship.

MacEwen K. E. & Barling J. (1988)\(^9^8\); Academic research has also shown that work/family conflict and job stress are associated with lower levels of marital satisfaction for women and withdrawal from marital interactions by both women and men.

White and Keith (1990)\(^9^9\); In a large-scale longitudinal study of shift work was found to reduce marital quality and increase the probability of divorce (while the effects are significant, they are relatively small). Moreover, findings indicated that shift work has an impact on all aspects of marital quality: marital happiness, marital interaction, disagreements, marital problems and sexual problems. Work demands that are especially likely to have this impact are: extended hours of work and working at unsocial times.

Levinger and Huston (1990)\(^1^0^0\); proposed that couples demonstrating this interactional quality, compared to those who rated low on this attribute, would report smaller increases in marital instability as a result of the normal conflicts and disagreements in married life. Additionally, we expected that marital empathy would not moderate the relationship between marital conflict and marital instability. That is, we proposed that internal family stressors such as marital conflict require more than an understanding response to reduce their negative influence on family relationships.

Smith and Folkard (1993)\(^1^0^1\); Shift work has been related to family and social problems such as higher work/non work conflict and diminished leisure activities
participation in voluntary organizations education of the children as well as reduced spouse satisfaction. There is a distinct pattern in the value of free time depending on its chronological position in the day and in the week.

Barnett (1993)\(^\text{102}\); has found that for full-time employed men and women in dual earner couples, having higher quality marital relationships can "buffer" the negative effects of job demands on psychological distress. Research shows that intimacy - being sensitive to the other's needs and getting to know one another grows from spending time together, talking to each other and listening. Intimacy develops from the everydayness of life and from comparing experiences at the end of the day. This leads to an involvement of each in the life of the other and a sense of being important and heard.

Adams, King and King (1996)\(^\text{103}\); have also found that higher levels of family emotional and instrumental support are associated with lower levels of work/family interference. Working unsociable hours in shift work has also been found to have an impact on intimate relationships. Effective communication and resolution of conflicts and differences are also made much more difficult.

Gottman (1997)\(^\text{104}\); Each of these work demands has a potential to have a negative impact on all aspects of relationships noted above: consensus, satisfaction with the relationship, relationship cohesiveness (spending time together in a relaxed environment) and agreement and satisfaction with the expression of affection. Effective communication and resolution of conflicts and differences are also made much more difficult. He argues: "If there is one lesson I have learned from my years of research it is that a lasting marriage results from a couple's ability to resolve the conflicts that are inevitable in any relationship."

Cramer (1998)\(^\text{105}\); Research evidence indicates that the quality of intimate relationships does matter to individuals, to families and to the community and therefore, they should be included in the work and family debate. A focus on providing better opportunities for people to both establish and maintain intimate relationships (involving passion, mutual trust and commitment) would be expected to have a positive impact on personal and family well-being and on a person's effectiveness at the workplace. Cramer concludes that research consistently shows that the following factors predict marital compatibility: being loving, sexually satisfied, communicative and emotionally stable.
Martially satisfied person had more effective problem solving communication, more and better leisure time together, less conflict over childrearing, less sexual dissatisfaction and fewer financial disagreements.

Wilson (2002) reports that, “several studies have shown that shift workers often feel isolated from their family and friends and less able to fill their domestic roles. This is seen to manifest itself in low self-esteem, anxiety and irritability”. While this likely affects both male and female shift workers. Shift work can lead to increased work-family conflict because marital responsibilities and family activities can be severely disrupted due to the shift worker being out of alignment with the routines of their family.

Rogers and May (2003); There is limited evidence that having a satisfying job may positively affect marital satisfaction. On one hand, if dual earners with traditional role preferences work out of financial necessity, it may be that they are overrepresented in jobs with weak career prospects and unpleasant working conditions. The association between preferences and marital satisfaction may depend on the type of job one has.

Strazdins et.al., (2003); when one spouse works a nonstandard shift, traditional family roles are disrupted, with likely effects on children’s socio emotional outcomes. Yet we know almost nothing about the within-family linkages between maternal shift schedules, mothers’ and fathers’ parenting behaviors, and children’s socio emotional. Moreover, the percentage of employees working nonstandard shifts is likely to increase. When one partner works a nonstandard shift, for whatever reason, the other partner’s work and family roles are affected, in some cases more than in others.

Grosswold, (2003); Shift work can also lead to dissatisfaction within marriages, as continually leaving a spouse alone at night or for prolonged periods of time, or failing to provide them with undivided attention can produce conflict and increased tension levels; this can lead to marital and sexual problems which ultimately results in shift workers having an increased divorce rate. The results of this study indicated that evening and night shift workers were significantly less likely to report family satisfaction than those working permanent day shifts, in comparison to permanent day shift workers who recorded 71% family satisfaction. Occupation, amount of job autonomy, education and work hours per week and family-friendly culture had no impact on family satisfaction.
Hill (2005)\textsuperscript{110}; workers that were supported by both a family-friendly organizational culture and supportive co-workers were more likely to report higher levels of family satisfaction, while having an understanding supervisor increased marital satisfaction. For women, being employed in a high stress job leads to negative spill over into their relationship wellbeing. For women with jobs characterized by challenging work, decision-making latitude, and supportive supervisors, relationships with the spouse were more supportive behaviors with less disruptive husband-wife interactions.

Tanya (2011)\textsuperscript{111}; says “Most women are career oriented. But getting back to work after a long break – whether it is because of marriage or a child – can be tough for them. Women, who took a yearlong break from her work after delivery, had to face a bit of change in the attitude of the interviewers. “I went for an interview recently and when interviewers saw the gap of a year in my work, they were sceptical about hiring me”.

3.4.3. Organizational related outcome of work family interference

Organizational satisfaction is a widely researched and complex phenomenon, it follows that there are numerous definitions of the concept. An effective organization will make sure that there is a spirit of cooperation, sense of commitment and satisfaction within the sphere of its influence. The issues associated with balancing work and family relates to the factors of satisfaction from the organizations. Numerous studies have been conducted and few reviews of work life conflict on organization are given here:

3.4.3. A. Job satisfaction

Lawler and Porter (1967)\textsuperscript{112}; gave this model of job satisfaction which unlike the previous model places a special importance on the impact of rewards on job satisfaction.
Figure: 4 Lawler and Porter model of Job satisfaction

Jones et. al., (1987)\textsuperscript{113}; used a self report instrument to measure stress in nurses’ working in a special psychiatric hospital. They conceptualized the outcomes of psychological distress, anxiety and depression as the result of the relationship between job demands, support, and constraints. Their study revealed three main types of job demands: administration demands (such as “contribution to conference meetings” and “report patients’ progress to medical staff”), patient supervision (“continually observe patients” and adverse demands (such as being required to “undertake work I consider unnecessary” and “work with patients I am afraid of”). Patient supervisory demands were high compared with administrative and adverse demands but nurses were not.

Spector (1997)\textsuperscript{114}, lists three important features of job satisfaction. First, organizations should be guided by human values. Such organizations will be oriented towards treating workers fairly and with respect. In such cases the assessment of job satisfaction may serve as a good indicator of employee effectiveness. High levels of job satisfaction may be sign of a good emotional and mental state of employees. Second, the behaviour of workers depending on their level of job satisfaction will affect the functioning and activities of the organization's business. From this it can be concluded that job satisfaction will result in positive behavior and vice versa, dissatisfaction from the work will result in negative behaviour of employees. Third, job satisfaction may serve as indicators of organizational activities. Through job satisfaction can serve as a good indication regarding in which organizational unit changes that would boost performance should be made.
Especially, the current review revealed the following main contributory factors to mental health nurses’ job satisfaction:

- Issues related to inter-professional working mostly between nurses and doctors, as well as amongst nurses & Autonomy (Farrell and Dares 1999)\(^{115}\)

- The type of the ward (acute, admission, short-/long-stay) as well as patients characteristics (acute phase, chronic patients) (Landeweerd, J. A. and Boumans, N. P. G 1998)\(^{116}\).

- The supportive line manager, (Sammut, G. R 1997)\(^{117}\).

- Nurses’ individual characteristics such as happiness with current life, personal accomplishment level, age, job security, (Carson, J., Fagin, L., and Ritter, S. A. 1995)\(^{118}\).

Finn (2001)\(^{119}\); Finns report recommend that autonomy is one of the most important job components to increase job satisfaction. Professional nurse autonomy is an essential characteristic of a discipline that is striving for full professional status. Professional autonomy is defined as a belief in the centrality of the client when making responsible discretionary decisions.

There are several variables that lead to high job satisfaction. These variables include but are not limited to: a positive perception of the nursing leadership in units, lack of role tension, good communication among nurses and other disciplines, continuity of care. Other variables that influence nurses’ job satisfaction includes:

- demographic variables: age, gender, education and hospital fringe benefits plan McNeese-Smith (2003)\(^{120}\).

- intelligence, interpersonal relationships and experience (Foley et al., 2002)\(^{121}\);

- job characteristics: job outcomes, job security, work schedules and salary (Thompson & Brown, 2002)\(^{122}\);

- patient-to-nurse ratio & Autonomy (Aiken et al., 2002)\(^{123}\);

- scheduling, amount of responsibility and rewards (Snow, 2002)\(^{124}\);
Best & Thurston (2003)\textsuperscript{125}; Looking forward, almost all surveyed nurses see the shortage in the future as a catalyst for increasing stress on nurses, lowering patient care quality, and causing nurses to leave the profession. High nurse turnover and vacancy rates are affecting access to health care.

Lu, While and Barriball (2005)\textsuperscript{126}; the retention and recruitment of nurses have shown that low wages and poor job satisfaction are the primary reasons why nurses leave their positions. Their dissatisfaction is often attributed to heavy workloads, leadership styles, motivation, inadequate training, and lack of respect.

Hass et al., (2006)\textsuperscript{127}; the experience of a “sense of belonging” encourages good teamwork, however, when a feeling of wariness and isolation exists between permanent nurses and agency nurses, teamwork is often lacking. Teamwork is easier to develop if a healthy relationship exists between permanent nurses and agency nurses.

Schmalenberg and Kramer (2007)\textsuperscript{128}; reported on survey results from 698 nurses working in intensive care units and found that the nurses in neonatal intensive care units scored significantly higher in professional job satisfaction than other types of intensive care units and neonatal intensive care units also scored significantly higher on the components of a healthy work environment than the other types. Interestingly, these were the same group of nurses who had the highest nurse assessed quality of patient care, which suggests the positive link between satisfaction and job performance.

The American Nurses Association (2012)\textsuperscript{129}; ANA revealed that the median age of nurses is 36 with more that 50% of the nursing workforces close to retirement. Nurses often need to work long hours under stressful conditions, which can result in fatigue, injury, and eventually lead to job dissatisfaction.

3.4.3. B. Career satisfaction

Stewart and Krueger’s (1996)\textsuperscript{130}; concept analysis of mentoring was built upon Yoder’s work in 1990, identifying six critical attributes of the concept: a teaching-learning process, a reciprocal role, a career development relationship, a knowledge or competence differential between participants, a duration of several years, and a resonating phenomenon; they also identified the following consequences of mentoring:
career progression, development of new investigators, empowerment, expanding professional knowledge and practice base, generativity, increasing numbers of minority nurses in master’s and doctoral programs, institutional stability, and professional socialization.

Seibert and Kramer (1999)\textsuperscript{131}; reported that extraversion was related positively to career satisfaction in a sample of 396 workers. Additionally, they found that neuroticism again emerged as a negative correlate of career satisfaction.

Mills and Blaesing (2000)\textsuperscript{132}; reported on results from a survey conducted during the last nursing shortage in 1989. The survey of 3298 Missouri nurses showed a serious problem then between how much support they Meaningful Recognition received from managers versus their career satisfaction. Twenty years ago support and recognition was as important to nurses as it is today, yet researchers today must still inculcate this message to get it heard.

Boudreau, Boswell and Judge (2001)\textsuperscript{133}; Authors found that agreeableness, conscientiousness, and extraversion were correlated positively with career satisfaction. They also discovered that extraversion was correlated significantly with the career satisfactions of European executives. In contrast, they found that neuroticism was correlated negatively with career satisfaction in both of their executive samples.

Kalagher (2002)\textsuperscript{134}; Kalagher wrote that nurse leaders were in a position to positively influence the careers of novice and expert nurses. Mentoring and career satisfaction could contribute to retention of registered nurses in the profession, while providing an opportunity to groom future nurse leaders.

Hoffman AJ, Scott LD (2003)\textsuperscript{135}; study examined the variation in role stress and career satisfaction among hospital-based registered nurses (RNs) by shift length. RNs working 12-hour shifts were younger, less experienced, and more stressed than colleagues working 8-hour shifts. Although in overall career satisfaction a significant differences were found in the areas of salary and professional status. Pay, autonomy, and professional status were the most important determinants of career satisfaction.

Lounsbury, Loveland, et. al., (2003)\textsuperscript{136}; discovered that 13 different personality traits were correlated significantly with career satisfaction in their sample of 5932
individuals undergoing career transitions. They determined that a core set of three traits – emotional resilience, optimism and work drive – accounted for most of the explainable variance in their measure of career satisfaction.

Rein Lepnurm, Roy Dobson, Allen Backman & David Keegan (2006)\textsuperscript{137}; The career satisfaction of specialists is affected by many variables ranging from family responsibilities, stress, the quality of services and facilities available to patients, professional rewards, and how the work is organized. The study demonstrated that variance associated with career satisfaction can be explained using various factors reported directly by physicians. Excessive stress negatively affects the career satisfaction.

3.5. Coping and Strategies

Literature concerning work-life balancing (WLB) has focused on questions about people coping with two interconnected parts of their lives. Coping strategies are used at individual and organizational level to cope with work life conflict which will give life satisfaction. The existing literature on work-family interference and copying strategies is reviewed, and finally these issues are discussed here:

Pearlin and Schooler (1978)\textsuperscript{138}; When nurses have enough coping strategies to deal with the problem, it results to successful coping and as such, leads to restoration of psychological wellbeing. When the coping skills are not adequate the stress may lead to illness and eventually death. Coping refers to behaviour that protects people from being psychologically harmed by problematic social experience. He describes coping as the mobilization of individuals biological, social and psychological responses in order to effectively deal with stressors. Coping is useful because it helps in reduction of challenges, threats and frustration and thereby protecting the individual.

Gordow GC, Henifin (1980)\textsuperscript{139}; A lot of nurses use social support; this was revealed for moderate health effect of shift work and also reduces the symptoms of stress. Social support is considered to be an essential factor in the perception of global stress and it reduces the impact of the stressors as well as reducing the detrimental effects of stress. Included in the social support is having an understanding husband. It helps a lot in coping with stress of shift work. Some nurses keep their children in day care centers while others
invite their parents to stay with them; others employ house help to help them while some are officially absent from work. There are no studies yet in the specific area of coping strategies or shift work tolerance in this environment.

Lazarus and Folkman (1983) maintain that similar to the “a square is a rectangle” analogy, not all adaptive processes can be considered coping, yet coping processes are a type of adaptation that requires effort on the part of the individual. Authors contend that coping does not occur spontaneously or unconsciously. Coping is a purposeful behavior designed to mitigate the impact of the stressor.

Cohen and Willis (1985); Authors concluded that in the absence of stressors, coping produced a limited effect on individual well-being. Coping mediates the impact of stressors on individual and organizational outcomes. However, when acting as a mediator of the stress - well-being relationship, coping did have a significant impact on individual well-being. They suggest that this occurs for two potential reasons: (1) coping attenuates or prevents a negative appraisal of stressful situations and (2) if a negative appraisal occurs, coping mediate the adverse impact by altering the level of stress reaction.

Härmä et.al., (1988); Diurnal type, personality, and different coping mechanisms like physical activity modify the effects of night and shift work on sleep and fatigue. Many of the changes can trigger short-term stress reactions and mechanisms that increase the clinical manifestations of cardiovascular disease.

Keller (1990); identified stressors in emergency nursing as well as effective coping skills used to decrease the stress levels. Emergency nurses that used a combination of short and long term coping skills reported lower levels of burnout and higher levels of personal accomplishment and job satisfaction.

Knauth P, Costa G (1996); Working irregular hours has a major impact on leisure time and domestic activities of all shift workers. The effects of shift work on leisure time are often both positive and negative. Older shift workers are also favored by the fact that they are practically self-selected and may have more experience with different coping mechanisms, such as priorities relating to sufficient recovery and napping, regular physical exercise, and so forth, with which to manage with shift work.
Caldwell (2001): Fatigue can occur anytime throughout a 23-hour period. When developing fatigue management strategies, it is important to incorporate opportunities for rest during the day, evening, and night, as dictated by the work environment. Scheduled naps of 10–60 minutes have been shown to decrease fatigue and sustain performance. To maximize the benefits of naps, it is important to provide an environment conducive for sleeping with adequate length.

Jezuit D (2003): Intense feelings of emotional pain can result, if unresolved, can affect both physical health and family life. Interventions to reduce work-related mental changes have focused on either changing the organization of work to reduce the stressors, or changing the workers’ ability to cope with stress by providing cognitive-behavioral interventions, relaxation techniques of various types/strategies. Although several nationwide initiatives on the prevention of mental disorders have emphasized the importance of addressing work organization factors only a small number of studies have evaluated this approach, and results have not shown an overall strong relationship.

Mimura and Griffiths (2003): In nursing conducted a systematic review of interventions for nurses to reduce their work stress. Two of the reviewed studies used organizational interventions (changing to individualized nursing care and primary nursing), and only one of the two was deemed “potentially effective.” Seven studies of strategies to help nurses manage their stress were presented; music, relaxation, exercise, humor, role-playing assertiveness, social support education, and cognitive techniques were among the stress-reducing strategies studied. The authors stated that no recommendations on the most effective approach were possible due to the small number of studies. Organizational interventions were not significant; however, the authors posit that combining individual-level skills with organizational changes may be a fruitful area for future research.

Powell and Greenhaus (2006): Powell and Greenhaus examined how individuals manage incidents of work-family conflict that pose difficult choices for them. The study examines two interrelated processes: a) the actions that individuals take to avoid conflict in such incidents; and b) the choices they make when the conflict cannot be avoided. First, they may try to reschedule one of the activities either the work or family
domain to. If successful, this strategy avoids work– family conflict by enabling individuals to participate fully in both activities. If support mobilization is unsuccessful, individuals decide whether to participate partially in some combination of both activities or to participate solely in either the work or family activity. Individuals use multiple cues in deciding response to work family conflict.

Dreher Dougherty (2008)\textsuperscript{149}; found organization implementing “Family friendly” programs such as child care facilities, special parental leave provisions and home work arrangements are seen as helping employees to balance their work & personal lives.

Boyd, et al., (2009)\textsuperscript{150}; found that problem-focused coping mediated the relationship between: (1) role clarity and emotional exhaustion; (2) role conflict and emotional exhaustion; (3) self-efficacy and emotional exhaustion; (3) locus of control and emotional exhaustion; (5) role clarity and job-induced anxiety; (6) role conflict and job-induced anxiety; (7) self-efficacy and job-induced anxiety; and (8) locus of control and job-induced anxiety (2009). Furthermore, Greenhaus, et al. suggest that coping behaviors (e.g., problem-focused coping strategies) can be used to mediate the negative effects of conflict over time, resulting in fewer episodic instances of conflict.

3.6. Life Satisfaction

Life satisfaction is a key indicator of subjective well-being. The multidisciplinary literature reviews on the relationship between work– family interference as antecedents of life satisfaction are given below:

Folkman & Lazarus (1980)\textsuperscript{151}; study is designed to investigate the relationship between the bi-directional elements of work/life conflict (i.e., work-to-family and family-to-work) and life satisfaction as mediated by the cognitive, or problem-focused, coping strategies of communication and problem-solving. This relationship is being treated as mediational for a variety of reasons. By definition, coping is a mediating construct, as it serves as a process for alleviating or ameliorating. Specifically, problem-focused coping strategies are utilized to manage or alter situations causing stress.

Lazarus and Folkman (1983)\textsuperscript{152}; define coping as “constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as
taxing or exceeding the resources of the person” This study utilizes the cognitive or problem-focused type of coping, which occurs when an individual perceives that stressful conditions are capable of being changed or influenced. Specifically, problem-solving and communication skills as cognitive coping measures serve as latent mediating variables.

Diener, et al., (1985)\textsuperscript{153}; Life satisfaction, by definition, is unique to the individual determining it. Although there is some agreement about the important qualities influencing life satisfaction (e.g., health and successful relationships), individuals ultimately determine these factors for themselves and assign a value to them.

Pavot and Diener (1993)\textsuperscript{154}; contend that life satisfaction judgments are comprised of three (3) temporal components: (1) long-term influences, which include personality and stable life circumstances; (2) moderate-term influences- current life events and cognitive interpretations; and (3) short-term influences -current mood and immediately salient life events. Research in social cognition supports components in suggesting that life satisfaction judgments are based on the relevant information available to the individual at the time the judgment is made.

Lucas, et al., (1996)\textsuperscript{155}; Life satisfaction serves as a perceptual judgment of an individual’s life, which is related to, but distinct from the affective components of Subjective well being(SWB). The cognitive dimensions of subjective well being are in actuality tapping the construct of life satisfaction.

Kossek and Ozekis (1998)\textsuperscript{156}; given the importance of satisfaction to individuals, organizations and society at large, it is imperative to understand the predictors and mediators of satisfaction. Research has been conducted on the negative (i.e., inverse) relationship between satisfaction and work/life conflict. In fact, Kossek and Ozekis (1998) stated in their meta-analysis of studies on the relationship between work/life conflict and satisfaction that “regardless of the type of measure used (bi-directional WFC), a consistent negative relationship exists among all forms of work-family conflict and job and life satisfaction”.

Perrewe and Zellers (1999)\textsuperscript{157}; Furthermore, some researchers suggest that the coping mechanisms an individual utilizes may be more important to overall well-being (including life satisfaction) than the actual stressors (e.g., work/life conflict) being faced.
Friedman (2001)\(^{158}\); Friedman states that since coping is positively related to an individual’s health and well-being, it is necessary in dealing with the stressors related to role incompatibility or conflict, and therefore should be included as a potentially important variable in work/life conflict research.

Voydanoff (2002)\(^{159}\); contends that coping mediates the relationship between the work/family interface (i.e., conflict) and various outcomes, including satisfaction.

Diener and Seligman (2003)\(^{160}\); contend that satisfied individuals have the ability to facilitate the operations of, and possibly influence, government through their ability to earn more money and create opportunities for others to earn.

Böhnke (2005)\(^{161}\); said life satisfaction, which gives a more cognitive-driven evaluation of one’s life as a whole, and happiness, which provides a more focused assessment of current emotional state. Many other socioeconomic, demographic, situational, contextual, environmental, institutional and personal factors influence quality of life and consequently are related to people’s rating of their life satisfaction. Deeper insight into these factors can contribute to a better understanding life satisfaction.

Lewin and Sager (2007)\(^{162}\); Multiple researchers suggest that certain coping styles/strategies are beneficial in mediating the impact of antecedent stressors on individual outcomes. He suggests that coping strategies have the potential to either diminish or amplify the negative effects of stressors (e.g., work/life conflict) on outcomes (e.g., life satisfaction).

Brooks (2008)\(^{163}\); Due to the amount of time individuals spend at work, high levels of job satisfaction tend to reinforce an individual’s personal satisfaction, thereby resulting in a greater level of life satisfaction overall. Due to its importance to organizational outcomes, contend that satisfaction may be the most extensively researched topic in the history of industrial and organizational psychology.

Diener and Biswas-Diener (2008)\(^{164}\); an individual’s overall life satisfaction should be of significant importance to organizations as well. Authors contend “individuals who are satisfied with their work will – by definition – be enjoying a greater chunk of their lives than people who can’t stand their jobs”. Pavot & Diener (2008)\(^{165}\); is
viewed Life satisfaction as a “constituent component of SWB” Their life satisfaction is a “distinct construct representing the cognitive and global evaluation of the quality of one’s life as a whole”.

Numerous researchers like Adams et al. (1996)\textsuperscript{166}, Duxbury and Higgins (2001)\textsuperscript{167}, Martins et. al., (2002)\textsuperscript{168}, Fisher-McAuley et. al., (2003)\textsuperscript{169}, Schieman et al. (2003)\textsuperscript{170}, Ezzedeen and Swiercz (2002)\textsuperscript{171}, Grzywacz and Bass (2003)\textsuperscript{172}, Sandhu and Mehta (2006)\textsuperscript{173}, Pal and Saksvik (2007)\textsuperscript{174}, & Haar and Baroel (2008)\textsuperscript{175} found that work life balance /work family conflict affects health, job stress, job satisfaction, family & career satisfaction and life satisfaction. Furthermore, it can also be concluded that much of the research done on this subject gives importance to both the work and life domain determinants yet, it still remains difficult for researchers to separate the boundaries between work and home. The term work life balance is based on the assumption that these are two individual and clearly separated spheres, the interplay which significantly affects the satisfaction of life. Therefore researchers try to adequately conceptualize both domains.

With this orientation of available literatures, the present study attempts to appraise how far these issues manifest in the lives of critical care nurses which aim to give life satisfaction by balancing the work and family who save the life many.

CONCLUSION

In this chapter, a brief appraisal of the studies on the issues surrounding critical care nurses as well as the coping strategies women employ to achieve work-life balance and enhance life satisfaction is presented with a view to unveil what has already been done on the issues related to the theme of the present study. On the basis of literature reviewed above, the following major conclusions can be drawn:

- Work-family interference is more prevalent as compared to family-work interference.
- Women experience more work/family interference
- Work/family interference has been found positively related to physical health hazards, psychological health disorder and sleep disorder
- Work/family interference influence marital satisfaction of married nurses and also family satisfaction
- Work/family interference significantly affect the job related variables job satisfaction and career satisfaction
- Higher importance accorded to work or family, the higher is the work/family interference.
- Work/family interference significantly affects the life satisfaction of any person on earth.

Much emphasis has been laid on studying the outcomes of work/family interference as compared to the antecedents especially in the context of work life balance. The researchers, who studied the antecedents, focused mainly on the work or family related variables; and has not taken individual related variables into account. Life satisfaction studies are least found. There are hardly few studies to be found in the Indian context, and hence the issues of work life balance and life satisfaction is wide open for research in India. Moreover, critical care nurses have not been studied specifically; and this profession has peculiar work demands which make it imperative to study the issue of work life balance in this context.

Hence, the present research is an effort to fill some of these gaps. Thus based on the extensive literature review of the similar studies the following model has been created which consists of all the factors included in the study. Present study is unique in terms of variables under the study which are never researched together in one study. The research progress of this study is clearly discussed in the following chapter which clearly enlightens conceptual structure within which research is conducted and the blueprint for the collection, measurement and analysis of data.
REFERENCES

References of researches about women in workplace


References of researches in critical care unit


References of researches about Work-Family interference


References of researches about Physical health issues


References of researches about Psychological health


References of researches about Sleep disorder


References of researches about Marital & Family Satisfaction.


References of researches about Job satisfaction


References of researches about Career satisfaction


References of researches about coping strategies


References of researches about Life satisfaction


Conclusion


