CHAPTER VI

SUMMARY, MAJOR FINDINGS, CONCLUSION, IMPLICATIONS, LIMITATIONS AND RECOMMENDATIONS

This chapter deals with summary of the present study, conclusions drawn from the findings, implications in nursing; practice, education, and research, limitations and recommendations for future research based on the present study findings.

Summary

Quality of life is complex and composed of multiple dimensions. It is a person’s sense of well-being, which is based on his/her satisfaction form the areas of life that are important for him/her. Working life constitute a large and important part of the day to day life of the person. Nurses represent the largest group of professional caregivers. Most are also informal caregivers for family members, including children, parents, spouse and other relatives. The impact of these caregiving roles individually and in combination has important implementation for health of nurses. It is important for nurses to maintain or improve quality of their lives. To cope with the challenges in the health care delivery system and to guarantee the quality of care rendered and client satisfaction on the care received, it is important to know how satisfied nurses are with their QOL and job and what characteristics influence their quality of life. Increased workload among nurses, growing occupational stress and inability to cope with it, lack of social or family support and declining job satisfaction are major concerns in nursing. Considering these factors a study was undertaken on quality of
life and psychosocial variables of nurses working in selected hospitals of Udupi and Mangalore (South Canara) districts.

**The objectives of the study were to:**

1. determine the Quality of Life of nurses as measured by WHO Quality of Life questionnaire.
2. determine the psychosocial variables of nurses: stress, coping, psychiatric morbidity, self-esteem, social support, and job satisfaction.
3. find out the determinants of Quality of life of nurses with regard to:
   3.1 Demographic variables: age, professional qualification, marital status, married status, number of children, type of family and monthly income.
   3.2 Work place variables: area of work, daily working hours, experience in current area of work and total years of experience.
4. find out the determinants of psychosocial variables with regard to demographic and work place variables.
5. find the relationship between quality of life and psychosocial variables.
6. find the relationship among the psycho-social variables.
7. compare the quality of life of nurses working in private and government hospital.
8. compare the psychosocial variables of nurses working in private and government hospitals.
9. determine the predictors of quality of life
Following null hypotheses were formulated for the study and tested at 0.05 level of significance

$H_01$. There will be no significant association between Quality of life and

$H_{01.1}$ Demographic variables: age, professional qualification, marital status, married status, number of children, type of family, and monthly income.

$H_{01.2}$ Work place variables: area of work, hours of work, total years of experience, and experience in current area of work.

$H_{01.2}$ Psychosocial variables and selected variables

$H_02$. There will be no significant association between stress of nurses and

$H_{02.1}$ Demographic variables: age, professional qualification, marital status, married status, number of children, type of family, and monthly income.

$H_{02.2}$ Work place variables: area of work, hours of work, total years of experience, and experience in current area of work.

$H_03$. There will be no significant association between coping of nurses and

$H_{03.1}$ Demographic variables: age, professional qualification, marital status, married status, number of children, type of family, and monthly income.

$H_{03.2}$ Work place variables: area of work, hours of work, total years of experience, and experience in current area of work.

$H_04$. There will be no significant association between psychiatric morbidity of nurses and

$H_{04.1}$ Demographic variables: age, professional qualification, marital status, married status, number of children, type of family and monthly income.

$H_{04.2}$ Work place variables: area of work, hours of work, total years of experience, and experience in current area of work.

$H_05$. There will be no significant association between self-esteem of nurses and
Chapter VI

Summary, Findings, Conclusion, Implications, Limitations & Recommendations

\( H_{05.1} \) Demographic variables: age, professional qualification, marital status, married status, number of children, type of family, and monthly income.

\( H_{05.2} \) Work place variables: area of work, hours of work, total years of experience, and experience in current area of work.

\( H_{06.} \) There will be no significant association between social support of nurses and

\( H_{06.1} \) Demographic variables: age, professional qualification, marital status, married status, number of children, type of family, and monthly income.

\( H_{06.2} \) Work place variables: area of work, hours of work, total years of experience, and experience in current area of work.

\( H_{07.} \) There will be no significant association between job satisfaction of nurses and

\( H_{07.1} \) Demographic variables: age, professional qualification, marital status, married status, number of children, type of family, and monthly income.

\( H_{07.2} \) Work place variables: area of work, hours of work, total years of experience, and experience in current area of work.

\( H_{08.} \) There will be no significant relationship between Quality of Life and psychosocial variables of nurses

\( H_{09.} \) There will be no significant relationship among psycho-social variables of nurses.

\( H_{10.} \) There will be no significant difference between the quality of life of nurses working in private and government hospitals

\( H_{011.} \) There will be no significant difference between

\( H_{011.1} \) mean stress score of nurses working in private and government hospitals.

\( H_{011.2} \) mean job satisfaction score of nurses working in private and government hospitals.
H0_{11.3} median psychiatric morbidity score of nurses working in private and government hospitals.

H0_{11.4} median self-esteem score of nurses working in private and government hospitals.

H0_{11.5} median social support score of nurses working in private and government hospitals.

H0_{11.6} median coping score of nurses working in private and government hospitals.

The assumptions underlying the study were:

1. Nursing is a helping profession requiring a high degree of commitment and involvement.

2. Quality of life is subjective and can be measured.

3. Quality of life influences the performance of nurses.

4. Nurses’ health and well-being are greatly influenced by the psychosocial and physical environment at work place.

5. Stress is a natural phenomenon that everyone experiences in their lifetime.

6. Coping responses are influenced by the source of stress, individual’s appraisal and situation in the workplace.

7. Self-esteem is one of the most important moderating variables in determining the effects of stress on individuals.

8. Job satisfaction is an important aspect of quality service delivery.

9. Social support contributes to a person's physical and mental well-being generally and/or as a buffer for someone under stress.

10. Subjects will feel free to answer the questions in the questionnaires.
The conceptual framework was developed by the researcher by relating all the concepts under the study, as an appropriate model which include all the variables could not be traced.

Operationally defined terms were:

Quality of life, age, type of family, marital status, area of current work, experience in current area of work, total years of experience, psycho-social variables, stress, coping, confrontive coping, distancing, self-controlling, seeking social support, accepting responsibility, escape/avoidance, planful problem solving, positive reappraisal, nurses, social support, job satisfaction and self-esteem.

Extensive review of the literature was performed from various sources and content was organized in relation to study variables under the headings of Concept of quality of life, Quality of life of nurses, Stress and coping of nurses, Self-esteem of nurses, Social support of nurses Psychiatric morbidity among nurses, Job satisfaction of nurses, and Indian researches on study variables.

Research approach used was survey and design was descriptive correlational as the purpose of the study was to examine the relationship among the variables.

The study population consisted of the registered nurses working in selected medical college hospitals and government hospitals of Udupi and Mangalore (South Canara) districts. Purposive sampling was used to select the samples from medical college hospitals, whereas all available samples were chosen from government hospitals as the population was comparatively very less in government hospitals.
Chapter VI Summary, Findings, Conclusion, Implications, Limitations & Recommendations

Sample size was 1040 which included 900 nurses from private medical college hospitals and 140 nurses from government hospitals.

The following tools were used for the present study

Tool 1: Background proforma (Developed by the researcher)
Tool 2: Social support scale (Developed by the researcher)
Tool 3: Questionnaire on Quality of life (WHO QOL-BREF)
Tool 4: Nursing Stress scale (Toft PG and Anderson JG)
Tool 5: Ways of coping questionnaire (Folkman & Lazarus)
Tool 6: General health questionnaire-12 (Goldberg DP)
Tool 7: Self-esteem scale (Rosenberg)
Tool 8: Job satisfaction scale (Minnesota)

The tools developed by the researcher were validated by the experts from various fields. For the social support scale the reliability co-efficient of internal consistency was computed using Cronbach’s alpha formula and the alpha value obtained was 0.86.

Pilot study was conducted among 100 registered nurses of SDM medical college hospital and 20 registered nurses of district hospital, Dharwad, Karnataka state in the month of July 2008. The settings of the main study were, Kasturba Hospital, Manipal, Kasturba Medical College & Hospitals, Mangalore Fr. Muller Medical College & Hospital, Kankanady, Mangalore, KS Hegde Hospital, Nithyananda Nagar, Deralakatte, Mangalore, Yenepoya Hospital Kodialbail, Mangalore, A.J. Institute of Medical Sciences, Mangalore, Lady Goshen
Hospital, Mangalore, Wenlock Govt Hospital, Hampankatta, Mangalore and Government Hospital, Udupi district.

The data were collected from the registered nurses of various hospitals in Udupi and Mangalore from 16\textsuperscript{th} February 2009 to 24\textsuperscript{th} June 2010 by administering the questionnaires. On the days of data collection, the researcher introduced herself and the purpose of the study was explained to the subjects and written consent was taken. The subjects were assured of the confidentiality of the information given.

Based on the objectives of the study and the hypotheses to be tested descriptive and inferential statistics were used for the statistical analysis of the data. Frequency and percentage were used to analyse the data related to sample characteristics. Other descriptive statistics used were mean, median and IQR. The inferential statistics used were Kruskal-Wallis test, Mann-Whitney (Z) test, independent ‘t’ test, Spearman Rho and stepwise Multiple regression analysis.

**Major findings of the study are:**

**Sample characteristics**

The sample size of the study was 1040 which consisted of 900 nurses who are working in private medical college hospitals and 140 nurses working in government hospitals. The subjects were between 21 to 56 years of age, with a mean age of 28.9 ± 7.67 years. Majority (70.2\%) of the subjects were in the age group of 21 to 30 years. General Nursing and Midwifery was the professional qualification for 906 (87.1\%) of the subjects. With reference to marital status, 555 (53.4\%) were single and among the married 326 of the subjects (67.22\%) were staying with spouse. With regard to type of
family, majority (82.5%) were from nuclear family. Data on number of children show that among 485 married subjects most of them i.e. 214 (44.13%) have two children. Monthly income for 532 (51.2%) of the subjects was within the range of rupees 5001-9000.

With regard to area of work most of the nurses (32.1%) were from medical area. Majority of them (75.5%) were working for eight hours a day. With reference to data on total years of experience 592 (56.2%) had 1-5 years of experience and 54(5.19%) of them had experience of more than 20 years. Data on experience in current area of work reveal that 390 (37.5%) had less than one year of experience.

Quality of life

Median score of QOL of nurses on overall perception of quality of life and health were equal (4). In transformed score of QOL within the range of 4-20, social domain obtained the highest (15.5) score while the environmental domain (13.5) had the lowest score.

Psychosocial variables

Stress: - majority of the subjects i.e. 60.38% experience low stress, 38.46% experience moderate stress and stress was high among 1.16% of the subjects. Mean stress score (7.03±3.1) was highest for the nurses in the sub area of death and dying and lowest mean stress score (2.7±1.6) was in the area of lack of staff support.

Coping: - In the subscale of coping mean score is high (12.2) for Positive reappraisal followed by seeking social support which had the mean score of 8.8. It is observed that the mean score was least in the area of accepting responsibility (4.9).
Psychiatric morbidity:- Among 1040 nurses 0.9% had severe distress and 5.6% had evidence of distress. Normal samples were 93.5%.

Self-esteem:- Majority of the subjects had normal self-esteem i.e. 813 (78.2%) and 211 (20.3%) had low self-esteem.

Social support:- Very good social support was perceived by 686 i.e. 66% subjects and 21 (2%) subjects perceived social support as poor.

Job satisfaction:- Based on the transformed score majority i.e. 977 (93.94%) were in the category of low satisfaction and only 10 (0.96%) subjects had high job satisfaction.

Determinants of Quality of life using selected variables

With regard to demographic variables significant association was observed between Quality of life and marital status (p<0.05) i.e. the married subjects had better QOL compared to subjects with single status. Significant association is also observed between quality of life and income per month (p<0.05). With Bonferroni correction it was revealed that the subjects who are having monthly income <5000 rupees are having lower quality of life compared to the subjects in other income category. No significant association was found between QOL and other demographic variables.

With reference to work variables there was significant association between Quality of life and area of work, working hours and total years of experience (p<0.05). With Bonferroni correction it is observed that subjects working in casualty are with lower QOL compared to subjects working in other areas. Nurses who work for 12 hours or more and nurses who have the experience of 1-5 years are having lower Quality of life. There was no significant association between quality of life and
Chapter VI  Summary, Findings, Conclusion, Implications, Limitations & Recommendations

experience in current area of work. Hence the determinants of quality of life identified are marital status, monthly income, and area of work, daily working hours and total years of experience.

**Determinants of Psychosocial variables using selected variables**

**Determinants of stress**

Among demographic variables significant association was found between stress and professional qualification ($p=0.02$), and marital status ($p=0.04$). Further analysis of the data revealed that more stress is experienced by the nurses who are qualified with General Nursing and Midwifery and nurses who are married. Other demographic variables were not significant at 0.05 level.

Analysis of data on work variables showed that there is significant association between stress and area of work, and further analysis showed nurses working in special ward experience more amount of stress. No significant association was found between stress and working hours, total years of experience and experience in current area of work. Therefore the determinants of stress identified with reference to selected variables are professional qualification and marital status and area of work.

**Determinants of coping**

With regard to demographic variables significant association was found only between coping and marital status ($p=0.03$) of the nurses and married nurses having lesser coping ability. There was no significant association between coping and other demographic variables. Kruskal - Wallis test computed for total years of experience ($z=21.21$, $p<0.001$) and experience in current area ($z=11.07$, $p<0.01$) and  coping of
nurses was significant. But area of work and hours of work are independent of coping. Further analysis showed nurses who have the experience of 6-10 years are having lowest coping. With Bonferroni correction experience in current area was not statistically significant (p>0.008). Hence marital status, total years of experience, and experience in current area of work are identified as determinants of coping

**Determinants of psychiatric morbidity**

No significant association between psychiatric morbidity in nurses and demographic variables was observed. With regard to work variables, significant association is observed between psychiatric morbidity and total years of experience ($z = 10.67, p=0.03$) and experience in current area of work ($z= 9.43, p=0.02$). Psychiatric morbidity score was more for the nurses who have 1-5 years of total experience and 1-3 years of experience in current area of work. Hence total years of experience and experience in current area of work are considered as determinants of psychiatric morbidity in nurses.

**Determinants of self-esteem**

There was significant association between self-esteem and married status of the nurses as the p-value computed is 0.005. Subjects staying away from husband due to job reason (Md=16) were having less self-esteem compared to the subjects staying with husband. Self-esteem of nurses had significant association with area of work and, daily working hours with regard to work variables. Nurses working in Intensive care units and nurses working for eight hours daily are having better self-esteem. Therefore married status, area of work and, and daily working hours could be considered as factors determining self-esteem of nurses.
Determinants of social support

Significant association exists between social support and demographic variables except married status (p=>0.05). Married nurses have less social support and also nurses from joint family are having less social support. The Spearman Rho calculated between age and social support was 0.199 with p value of 0.001 which shows a significant but weak correlation between social support and age.

Nurses with BSc Nursing as professional qualification, having one child and having monthly income 50001-9000 rupees are having better social support. Significant association is also observed between social support and total years of experience and experience in current area of work (p=<0.05). Further analysis with Bonferroni correction revealed that nurses who have the total experience within 1-5 years and who are having <1 year of experience in the current area of work are having better social support. Hence the determinants of social support of nurses are age, professional qualification, marital status, type of family, number of children, monthly income, total years of experience and experience in current area of work.

Determinants of job satisfaction

With reference to demographic variables significant association exist only between job satisfaction and income per month i.e. nurses who are having the income rupees <5000 per month are less satisfied with their job. Significant association between job satisfaction, area of work and working hours (p=<0.05) is also observed. Analysis with Bonferroni correction revealed that nurses working in Intensive care unit (Md=55) and working for eight hours per day (Md=54) are having more job satisfaction compared to the nurses working in other areas and nurses who are
working for more than eight hours per day. Hence monthly income, area of work and daily working hours are identified as determinants of job satisfaction of nurses.

**Relationship between Quality of life and psycho-social variables**

Quality of life had significant negative but weak relationship with stress ($\rho=-.236, p<0.001$), and psychiatric morbidity ($\rho=-0.272, p<0.001$) and a positive but weak relationship is observed with self-esteem ($\rho=0.293, p<0.001$), social support ($\rho=0.323, p<0.001$) and job satisfaction ($\rho=0.278, p<0.001$). Even though the correlation is statistically significant the magnitude of the correlation coefficient was very low. No significant correlation exists between QOL and coping ability of nurses.

**Relationship among psycho-social variables**

There was weak positive correlation for stress with coping ($\rho=0.198, p<0.001$), and psychiatric morbidity ($\rho=0.27, p<0.001$) and weak negative correlation for stress with self-esteem ($\rho=-0.217, p<0.001$), social support ($\rho=-0.153, p<0.001$) and job satisfaction ($\rho=-0.153, p<0.001$). With regard to coping positive correlation exist with self-esteem ($\rho=0.06, p=0.032$), social support ($\rho=0.092, p=0.003$) and job satisfaction ($\rho=0.176, p=0.001$). Weak negative correlation was also observed for psychiatric morbidity with self-esteem ($\rho=-0.341, p<0.001$), social support ($\rho=-0.15, p<0.001$) and job satisfaction ($\rho=-0.198, p<0.001$). Data on self-esteem show a weak positive correlation with social support ($\rho=0.215, p=0.001$) and job satisfaction ($\rho=0.267, p=0.001$). Positive but weak correlation is also observed between social support and job satisfaction ($\rho=0.174, p<0.001$).
Comparison of Quality of life and psychosocial variables between nurses working in private and government institutions

There was no significant difference in median Quality of life scores of nurses working in private and general hospitals at 0.05level (p>0.05).

Comparison of psychosocial variables of nurses working in Private and Government institutions

Significant difference was observed between median social support score of nurses working in private and government institutions (z = -3.29, p = 0.001). No significant difference was found with regard to stress, coping, job satisfaction, psychiatric morbidity, and self-esteem.

Predictors of Quality of life

Stepwise multiple regression analysis revealed that social support has highest influence on total quality of life (Standardized Coefficients β = 0.27) followed by job satisfaction (Standardized Coefficients β = 0.16), marital status (Standardized Coefficients β = 0.13), and self-esteem (Standardized Coefficients β = 0.114). Variables which are negatively related to quality of life are psychiatric morbidity (Standardized Coefficients β =-0.14), stress (Standardized Coefficients β = -0. 13), and working hours (Standardized Coefficients β = -0.07).
Conclusions

- Nurses are underpaid in many institutions which may affect their QOL.

- No standard is followed in most of the institutions regarding the nurses duty hours in a day. Some institutions follow different duty hours for nurse. This also could be a significant factor contributing to poor QOL.

- Nurses overall perception of quality of life and health is good as the median score was four with maximum score of five.

- There is a great concern regarding nurses physical environment, safety, pay, availability of information, opportunity for pleasure activities, health services and transport etc., as Environmental domain of the QOL had the lowest score (13.5).

- Significant number of nurses experience stress, which may diminish nursing care quality. Dual roles of the nurses after marriage could be one of the contributing factors for married nurses to have more stress and less coping.

- Nurses make efforts to create positive meaning by focusing on personal growth and make efforts to seek informational support, tangible support and emotional support.

- During initial period of job there is increased chance to develop psychological problems.

- Self-esteem depends on the area of work, working hours, and presence of the spouses for married nurses.

- Some of the factors affecting social support are modifiable.

- Monthly pay and the hours of work in a day are the main factors affecting job satisfaction.
• Quality of life is affected by many factors as it had significant negative but weak relationship with stress and psychiatric morbidity. A positive but weak relation is observed with self-esteem, social support and job satisfaction.

• Psycho social variables are dependent on each other either negatively or positively.

• Significant difference was observed only between median social support score of nurses working in private and government institutions. No significant difference was found with regard to stress, coping, job satisfaction, psychiatric morbidity, and self-esteem

**Implications**

The findings of the present study have many implications in nursing profession as it was conducted among nurses. The implications are discussed with regard to nursing practice, nursing education and nursing research.

**Nursing practice**

Quality of life is one of the important components of a person’s work life, and it is found that there are many factors which affect nurses’ quality of life. It was found in the present study that environmental domain (13.5) of the QOL had the lowest score. As physical environment, safety, pay, availability of information, opportunity for pleasure activities, health services and transport are the main aspects of the environmental domain, nurse administrators need to be attentive to these areas as it may affect the care provided to the clients.
Nurse administrators are facing serious challenges to provide high quality care with current nursing shortages. Nursing shortage is a major concern for nurse administrators as it has impact on quality of the care provided. It was found in the present study that significant amount of nurses experience moderate stress. Nursing shortage could be one of the reasons for having increased stress as the mean score of workload in the subscale of stress was more. Excessive work load require attention from management especially because safe work environments are legally required. Reducing the effect of environmental stressors such as workload, staffing, and assisting nurses to balance priorities may be effective interventions. Attempts to deal with the sources of stress and their consequences need to be made at individual, inter-personal, and organisational levels. At an individual level, nurses may continue to develop self-efficacy through professional training and continuing education was stress reduction programmes are emphasised. At an inter-personal level, social support from co-workers should be sustained at the current levels. Greater attention needs to be directed to not only acknowledging nurses’ stress but also to provide a mechanism that promotes coping. Organisationally, nurses’ emotional well-being through professional recognition, work reorganisation, and supervisory support can be promoted. It is in the best interests of both parties to take reasonable steps to create a healthy working environment which in turn would result in quality client care.

It was also revealed in the study that during initial period of job there is increased chance to develop psychological problems, this could be due to the problem in the adjustment with the new environment. Providing support to the newly joined nurse through mentor/preceptor programme can be of great help in dealing with this issue as it may reduce role ambiguity along with clear communication of role...
expectations. Nurse administrators can take active role in starting it for their new nurse. Senior nurses can be oriented to this concept through continuing nursing education programme. An association is found between self-esteem of nurses and the area of work and hours of work in a day. Nurse administrators have to make sure that their nurses are not working more than eight hours and rotating the nurses after a specific and reasonable period of time may be recommended as the nurses get a chance to be indifferent areas. Majority of the nurses in the study was not satisfied with their job and one of the main factors for which was the pay they received. Many nurses in many institutions are underpaid and they work for even more than twelve hours. Strong recommendations need to be made to the concerned authorities regarding this matter.

**Nursing education**

Nursing curriculum is being revised periodically based on the needs of the society and the profession. An awareness of nurses' problems and issues could be included in the basic curriculum of student nurses as it may help them to prepare for the future. Students may be oriented to various dimensions of QOL and the factors associated with it. Role of social support in dealing with stress and to have a good quality of life and the ways to seek it also need to be addressed. Stress reduction programme and self-esteem enhancement programme etc. need to be emphasized in the curriculum and short courses on these can be conducted. School authorities have to take initiative and responsibility in starting such program in their institutions. It was found in the present study that issues of death and dying confront nurses with great stress in their daily work, so it is crucial that nurses be prepared to handle emotions such as sadness, fear, despair and anxiety. This highlights the need to include more content on psychosocial aspects of patient care in the nursing curriculum.
Nursing research

Research is an important tool for the continual development of a relevant body of knowledge in nursing and it generates information from nursing investigations which help define the unique role of nursing as a profession. Future research can broaden the scope of the current results and offer a more comprehensive understanding of nurses' quality of life. Researches can be done by incorporating interventions to reduce the stress among nurses. Relationship between Type A personality and the stress among the nurses can be studied as it was reported in the work done by Jamal M, Baba W V that Type A nurses experienced significantly greater work stress than did Type B nurses.

Limitations

Following limitations are identified by the researcher for the present study.

- The research was focused on self-report measurement where researcher had to assume that the respondents were truthful.
- Non random selection of sample.
- Sample size from different units/wards was not balanced.
- Only nurses in a hospital setting were included in the study which limits the generalization of findings.
- The results cannot be generalized beyond female nurses.
Chapter VI Summary, Findings, Conclusion, Implications, Limitations & Recommendations

Recommendations

Based on the present study findings the researcher makes following recommendations for future research.

- Intervention studies are needed to assess the effectiveness of various methods for reducing stress of nurses
- Quality of life of nurses can be measured by developing tool specific to nurses
- Studies that include some objective measures, such as behavioural indicators and physiological concomitants are needed
- Longitudinal studies can be conducted with few variables
- Large survey can be done by including nurses working in all settings
- Longitudinal data would provide a better basis for evaluating assumptions of the study regarding the directions of the proposed relationships.
- Qualitative research could be used to explore and describe the experiences of registered nurses in the work environment

Summary of the chapter

This chapter dealt with summary of the present study, conclusions drawn from the findings, implications in nursing: practice, education, and research, limitations and recommendation for future research based on the present study findings.