CHAPTER III
RESEARCH METHODOLOGY

3.1 Introduction

Research generally refers to the systematic investigation of the specified problem based on the data collected. Research design is the conceptual structure within which research is conducted. The previous chapter indicates the conceptual backdrop and the research trends of the Quality of Work Life of Nurses. This chapter explains the hypotheses of the research derived on the basis of the previous chapter. The nature of the research, the sampling procedures, method of data collection, reliability and validity of the measuring tools, detail of measuring tools used and limitation encountered in the research are also included.

3.2 Hypotheses of the study

Based on the objectives set for the study the following hypotheses are formulated. They are

1. There is no significant difference in Quality of work life dimensions among nurses in government and private hospitals.
2. There is no significant difference in Work Environment dimensions among nurses in government and private hospitals.
3. There is no significant difference in Personal Effectiveness dimensions among nurses in government and private hospitals.
4. There is no significant difference in emotional competence dimensions among nurses in government and private hospitals.
5. There is no significant difference in career satisfaction among nurses in government and private hospitals.
6. There is no significant difference in life satisfaction among nurses in government and private hospitals.

3.3 Pilot Study

A pilot test was conducted to ensure the results of the questionnaire and valid to meet the objectives of this study. Questionnaire was validated by involving 40 nurses (20 governments and 20 private hospitals). Based on their feedback, some alternatives were made before the questionnaire and feedback given by the nurses helped the researcher to edit and make changes in the questionnaire. The pilot study used 40 nurses, 20 from government and 20 from private hospital. Cronbach’s alpha analysis was used to test the reliability of the instrument. The cronbach’s alpha of control variables are Quality of nursing work life (QNWL) Scale by Brooks and Anderson (2004). Work Environment Scale by Porter (1961). Personal Effectiveness Scale by Dr. Udai Pareek. Emotional competence scale by Sharma and Baradwaj (1995). Career Satisfaction by Greenhaus, Parasuraman, and Wormley (1990). Life satisfaction Scale by Andrews and Withey (1976). Job involvement scale.

3.4 Research Design

The intent of the study is to explore the level of the quality of work life among nurses in government and private hospitals in Cuddalore district. In this study the researcher has used snow ball sampling technique. In Cuddalore district six taluk are there. The researcher has approached hospitals
to provide a comprehensive list of the bed capacity of the hospitals in six taluk of the government and private hospitals. Some of the factors are affecting the quality of work life. They are work environment, personal effectiveness and emotional competence which largely affecting the nursing quality work life directly. The study follows the conceptual framework which is designed for it’s specially. Hence, a descriptive research design was followed by the researcher. A survey was conducted among nurses in government and private hospitals at Cuddalore district with the help of a questionnaire, which is appended at the end of the thesis. The study, mainly concentrated on the organizational behaviour aspects of nursing profession. It does not cover the clinical aspects of the profession. Quality of work life would allow the organization to attract as well retains a healthy, committed work force in hospitals which focused upon as an enhanced nursing staff would lead to a healthy working life.

3.5 Operational Definitions

The following terms and variables are used in the study has been given below:

a) Staff Nurse

For the purpose of the study cuddalore staff nurses having the minimum professional education of two year durations and leading to qualify the Diploma in nursing, the degree holders of the (B.Sc) nurses and employed of the government and private hospital nurses were included.
b) Government Hospital

In government hospital nurses receives the higher monetary benefits, job security and they receive monthly extra compensation like hazard pay etc. More exposure and more experience. The disadvantage of government hospitals includes long working hours, increases number of work load and shortages of resources.

c) Private Hospital

The major benefits of the nurse in private hospitals include the use of highly sophisticated and multi tasking equipments are also able to practice the ideal standards set by the profession and accrediting institutions. Since, they do not experience scarcity of supplies. Hence, the disadvantage of the nurses receives lesser amount of salary compare with government nurse. There is no job security and they have less exposed to medical cases, which limit their clinical experience.

d) Hospital Size

Hospitals are categorized in a number of ways. This study is carried out in government and private with a bed size of 15 and above. The more beds of a hospital have typically the more services, it will provide. For example most hospitals provide general surgeries and deliver babies, but not all hospitals treat major trauma patients or provide cardiac care etc.
e) **Job characteristics**

The job characteristics basically indicate how well a job is designed to carry out tasks without having hurdles and bring effectiveness from the particular job holder to achieve such task with satisfaction. The job characteristics built into the job requirement of different skills variety, task variety and task identity by this staff will have freedom and control on schedule, plan their work and the objective information about progress and performance from the job.

f) **Quality of work life**

The quality of nursing work life means “the nursing staff work in satisfying work place where they have safety from work related injuries, protection from abuse, adequate support from other healthcare providers and security, clean environment such as adequate physical surroundings and improving the balance of work and home life”. The quality of work life of the nursing staff depends on their age, experiences, team functioning, culture, work load and productivity, level of autonomy and decision making, professional development opportunities, scope for nursing leadership role and absenteeism. The issues that affect the quality of work life of nurses are work load, hours of work, scheduling, salaries and benefits, scope for practice, respect for superiors and colleagues, nursing shortage, support for continuous learning, abuse, and nursing staff personal health. Here, the quality of work life refers to quality of nursing work life. It is defined as the favorable conditions and environments of
a workplace that supports and promotes employee satisfaction by providing them with rewards, job security, and growth opportunities.

**g) Work Environment**

The term work environment refers to the nursing staff's surrounding in and around the work that would facilitate and enhance their skills and abilities to achieve the tasks in the hospital. The environment can also be related to some factors which affects the nursing job in the hospital are Physical Environment - Hospital Bed Size; Work Load; Technology/Equipment; Availability of Material Supply; Nurse Patient Ratio; Shift Timings; Working Hours. Social Environment - Interpersonal Relations; Multiple Teams; Management Style; Status at Work; Autonomy; Decision Making; Culture and Climate and Administrative Environment: Organizational Structure; Organizational Goals; Policies for Nurses (Promotion, Leave, Transfer); and the Performance Evaluation system.

**h) Personnel effectiveness**

True self awareness is the foundation of personal effectiveness. Self awareness is the key to successful learning and growth in a management role because it forms the basis by which how we perceive ourselves and how we perceive from others.

**i) Emotional competence**

It refers to one’s ability to express or release one’s inner feelings (emotions).
j) Career satisfaction

Career satisfaction may be defined as the level of overall happiness experienced through one's choice of occupations.

k) Life satisfaction

It is defined as the way a person perceives how his or her life has been and how they feel about where it is going in the future. It measures of well being and assessed in terms of mood, satisfaction with relations with others and with achieved goals, self concepts and self perceived ability to cope with daily life.

3.6 Sampling Framework

Area

The study aims at analyzing the QWL among nurses in Government and private hospitals in Cuddalore district. This district comprises of 7 Taluks such as: (i) Chidambaram, (ii) Vridhachalam, (iii) Panruti, (iv) Thittagudi, (v) Kattumannarkoil, (vi) Kurinijipadi, (vii) Parangipettai and cuddalore.

3.7 Sampling Technique

Sampling technique provides a range of methods that enable to reduce the amount of data needed to collect by constructing only data from a subgroup rather than all possible cases or elements (Mark Saunders, 2003). In cuddalore district 8 government hospitals are there at Chidambaram, Vridhachalam, Panruti, Thittagudi, Kattumannarkoil, Kurinijipadi, Parangipettai and cuddalore. By snowball technique sampling method 133 the staff nurses were selected from the 8 hospitals. From 27 private hospital are there with [more than 10 beds above]. Again by snowball sampling method 193
private staff nurses were selected. In both government and private nurses it has ensured that entire area of cuddalore district has been collected. Consequently Snowball sampling of non-probability sampling technique that is used by researchers to identify potential subjects in studies where subjects are hard to locate for collecting data for the study. Researchers have the freedom to choose whomever they find, thus the name convenience.

3.8 Primary Data

The Primary data was collected by surveying through hard copy circulation. An effort is also taken to circulate the questionnaire personally to the nurses in government and private hospitals for collecting data. The respondents are explained about the purpose of the research, and assured that their data will be kept confidentially and used only for the academic purpose.

3.9 Secondary Data

The secondary data is needed for the study were collected from journals, magazines, other publications, reports, book, dairies, other forms of periodicals and articles , research papers, websites, publication, manuals, booklets etc and from the government hospital list taken from Government records.

3.10 Sample Size Determination

The mean objective of the study is to find out any significance difference exists between government and private nurses with respects of QWL. As per Pilot study has been carried out to assess the QWL among nurses in government and private hospitals. For this purpose 20 government nurses and
20 private nurses were selected from cuddalore district are taken for sample size determination. The average of mean QWL was found to be 155.8 with the SD of 7.08 for the government nurses. The mean of QWL was found to be 155.2 with the SD of 7.06 for the private nurses. Keeping this information as premier information the sample size was determined using the following formula. [Difference between the two sample mean- finite population correction].

\[ n = \frac{2 \times SP}{\text{x}} \]

Where \( SP \) is \( \frac{N \text{ Finite}}{F \times n} \) Where

In cuddalore district 183 staff nurses are working in government hospital. 287 staff nurses are working in private hospital. Hence the total of 470 staff nurses is working in cuddalore district.

Sample size calculation for SD1 was found to be 7.08 and SD2 was found to be 7.06 with 5 percent level of significance [table value =1.96] and the mean difference is .06. So using this above value the required sample was 326. Hence from the government nurses 133 were selected from the private hospital nurses 193 were selected.
3.11 Instruments Description

Demographic factors and Job characteristic

Demographic factors include age, gender, educational status, marital status, total work experience, present work experience, religion, adult, children, non dependant, earning members, monthly self income, monthly family income, mode of transport, amount spent on travel. Reviewing the literature indicates that studies conducted earlier have not included job characteristic such as present designation, present department, work as per designation, shift timing, avail, double duty, often double duty and ward or job rotation.

In order to measure the Quality of work life among nurses in government and private hospitals the following tools have been used in the present study.

1. Quality of nursing work life (QNWL) Scale - developed by Brooks and Anderson (2004)
2. Work Environment Scale - developed by Porter (1961)
3. Personal Effectiveness Scale - developed by Dr. Udai Pareek (2001)
4. Emotional competence scale - developed by Sharma and Baradwaj (1995)
5. Career Satisfaction (CS) - developed by Greenhaus, Parasuraman, and Wormley, (1990)
3.12 Quality of Nursing Work Life Scale

a) Description

To assess QWL allows organizations to understand how work environments and home life challenges affect the nurses’ work experience, work satisfaction and organizational commitments.

The Quality of nursing work life tool has been constructed and standardized by Brooks and Anderson scale. This scale consists of 42 items measured by 4 dimensions. They are home life, work design, work context and work world.

b) Instructions

The following statements is obtained with six point scale ranging from

1- Never 2- Little 3- Rarely
4- Sometimes 5- Often 6- Always

c) Scoring

The dimension consists of 42 items. So the minimum score is 42 and maximum is core is 252. The mean value of less than 105 is considered as a low score, scores between 105 and 168 is moderate and the mean value of 168 and above is considered as high score. The higher the score, higher is the overall work life of the nurses.
3.13 Home life

a) Description

This dimension refers to interface between the life experiences of nurses in their place of work and in the home like-family needs, energy after work, working hours and policy of vacations in the following statements 1,2,3,4,5,6,7.

b) Scoring

The dimension consists of 7 items. So the minimum and maximum possible scores are 7 to 42. The mean value of less than 17.5 is considered as a low score, scores between 17.5 and 28 is moderate and the mean value of 28 and above is considered as high score. The higher the score, higher is the home life of the nurses.

3.14 Work design

a) Description

This dimension refers to composition of nursing work, describes the actual work nurses do like - job satisfaction, work load, autonomy, non-nursing works, interruptions, time to do jobs, work force, patient care in the following statements 1-10 items.

b) Scoring

The dimension consists of 10 items. So the minimum and maximum possible scores are 10- 60. The mean value of less than 25 is considered as a low score, scores between 25 and 40 is moderate and the mean value of 40 and
above is considered as high score. The higher the score, higher is the work
design of the nurses

3.15 Work context

a) Description

This dimension refers to the practice settings in which nurses work and
explores the impact of the work environment on both nurse and patient
systems like – management, co-workers, growth opportunities, work
environment in the following statements 1-20 items.

b) Scoring

The dimension consists of 20 items. So the minimum and maximum
possible scores are 20- 120. The mean value of less than 50 is considered as a
low score, scores between 50 and 80 is moderate and the mean value of 80 and
above is considered as high score. The higher the score, higher is the work
context of the nurses.

3.16 Work world

a) Description

This dimension refers to the effects of broad societal influences and changes
on the practice of nursing like – image in nursing, payment, labour market,
security of job, belief in nursing in the following statements 1-5 items.

b) Scoring

The dimension consists of 5 items. So the minimum score is 5 and
maximum is core is 20. The mean value of less than 12 is considered as a low
score, scores between 12 and 19.2 is moderate and the mean value of 19.2 and
above is considered as high score. The higher the score, higher is the work world of the nurses.

3.17 Work Environment Scale

   a) Description

   To assess the level of employee needs that are pursued on the job, the level of organizational resources relevant to the needs experienced by the employees, the congruence between a person’s needs and organizational resources with greater congruence reflecting increased need fulfillment by the organization. This need satisfaction of Work environment has been developed by Porter scale. This scale consists of 16 items measured by 7 dimensions based on Maslow’s hierarchy needs. They are health and safety, economy, social, esteem, actualization knowledge and aesthetic.

   b) Instructions

   The following statements is obtained with seven point scale ranging from

   1- Strongly Disagree  2- Disagree  3- slightly Disagree
   4- undecided         5- Slightly Agree  6- Agree
   7 - Strongly Agree

3.18 Health and safety needs

   a) Description

   It refers to the protection from ill health and injury at work and outside work as well as enhancement of good health. It is measured by 1 and 3 items.
b) Scoring

The dimension consists of 3 items. So the minimum score is 7 and maximum is core is 21. The mean value of less than 7 is considered as a low score, scores between 7 and 11.2 is moderate and the mean value of 11.2 and above is considered as high score. The higher the score, higher is health and safety.

3.19 Economy needs

a) Description

It refers to the adequate wages, job security, and other family needs such as having enough time from work to attend to family needs. It is measured by 4 and 6 items.

b) Scoring

The dimension consists of 3 items. So the minimum score is 7 and maximum is core is 21. The mean value of less than 7 is considered as a low score, scores between 7 and 11.2 is moderate and the mean value of 11.2 and above is considered as high score. The higher the score, higher is economy.

3.20 Social needs

a) Description

It refers to the collegiality at work and leisure time off work. It is measured by 7 and 8 items.
b) **Scoring**

The dimension consists of 2 items. So the minimum score is 7 and maximum is core is 14. The mean value of less than 3.5 is considered as a low score, scores between 3.5 and 5.6 is moderate and the mean value of 5.6 and above is considered as high score. The higher the score, higher is social.

### 3.21 Esteem needs

a) **Description**

It refers to the recognition and appreciation of one’s work both inside and outside the organization. It is measured by 9 and 10 items.

b) **Scoring**

The dimension consists of 2 items. So the minimum score is 7 and maximum is core is 14. The mean value of less than 3.5 is considered as a low score, scores between 3.5 and 5.6 is moderate and the mean value of 5.6 and above is considered as high score. The higher the score, higher is esteem.

### 3.22 Actualization needs

a) **Description**

It refers to the realization of one’s potential within the organization and as a professional. It is measured by 11 and 12 items.

b) **Scoring**

The dimension consists of 2 items. So the minimum score is 7 and maximum is core is 14. The mean value of less than 3.5 is considered as a low score, scores between 3.5 and 5.6 is moderate and the mean value of
5.6 and above is considered as high score. The higher the score, higher is actualization.

3.33 Knowledge needs

a) Description

It refers to the learning to enhance job skills and professional skills. It is measured by 13 and 14 items.

b) Scoring

The dimension consists of 2 items. So the minimum score is 7 and maximum is core is 14. The mean value of less than 3.5 is considered as a low score, scores between 3.5 and 5.6 is moderate and the mean value of 5.6 and above is considered as high score. The higher the score, higher is knowledge.

3.34 Aesthetic needs

a) Description

It refers to the creativity at work, personal creativity and general aesthetic. It is measured by 15 and 16 items.

b) Scoring

The dimension consists of 2 items. So the minimum score is 7 and maximum is core is 14. The mean value of less than 3.5 is considered as a low score, scores between 3.5 and 5.6 is moderate and the mean value of 5.6 and above is considered as high score. The higher the score, higher is aesthetic.
3.35 Personal Effectiveness Scale

a) Description

This refers to self awareness is the key to successful learning and growth in a management role because it forms the basis by which how we perceive ourselves and how we perceive from others. This scale describes individuals’ effectiveness in term of self–disclosure, openness to feedback and perceptiveness. It contains fifteen items.

b) Instructions

This was measured by five point scale. Please make a tick (✓) mark against which so ever suits you among the five alternatives and they

0- Not at all true 1- Occasionally true 2 – Somewhat true
3- Fairly true 4- Mostly true

c) Scoring

It was measured by 5 point scale range from 0 to 4. The question number contain* are reversed score items.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Question Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Disclosure</td>
<td>1*,4*,7,10*,13</td>
</tr>
<tr>
<td>Openness to Feedback</td>
<td>2,5*,8,11*,14</td>
</tr>
<tr>
<td>Perceptiveness</td>
<td>3*,6*,9,12*,15*</td>
</tr>
</tbody>
</table>

If the total score is eleven or below it is marked as low and above eleven it is marked as high.
3.36 Emotional Competence Scale

a) Description

Emotional competence refers to one’s ability to express or release one’s inner feelings (emotions). It identifies five different competencies in emotional such as a) adequate depth of feeling b) adequate expression and control of emotions, c) ability to function with emotions d) ability to cope with the problem of the emotions, e) encouragement of positive emotions. This scale consists of 30 items with five alternative answers.

b) Instructions

This was measured by five point scale. Please make a tick (✓) mark against which so ever suits you among the five alternatives and they

1- As very much 2- Much 3 – Normally
4- Slightly 5- Very Slightly

b) Scoring

The minimum score and maximum score is 6-30. If the mean value is less than 12 for low highly incompetent in emotions, scores between =12 and 19.2 moderately emotional competent in emotion, mean value of 19.2 and above indicate as highly as competent in emotion.
3.37 Career Satisfaction

a) Description

It is defined as the contentment that a nurse feels as a nursing professional in terms of intrinsic and extrinsic rewards; for nurses, intrinsic rewards, such as: autonomy, professional status and human interactions are ranked as most desirable. Career satisfaction concerns a nurse’s feeling about the career choice of nursing. The Scale was borrowed by Greenhaus, Parasuraman, and Wormley, (1990). This scale has 8 items.

b) Instructions

It refers more broadly to satisfaction with a career in nursing and may be a critical element in retaining nurses in the profession. This was measured by five point scale. Please make a tick (✓) mark against which so ever suits you among the five alternatives and they are.

<table>
<thead>
<tr>
<th>S.NO</th>
<th>Factor Descriptions</th>
<th>Q.NO in the scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Adequate depth of feeling (ADF)</td>
<td>1, 6, 11, 16, 21, 26</td>
</tr>
<tr>
<td>2</td>
<td>Adequate expression and control of emotions (AECE)</td>
<td>2, 7, 12, 17, 22, 27</td>
</tr>
<tr>
<td>3</td>
<td>Ability to function with emotions (AFE)</td>
<td>3, 8, 13, 18, 23, 28</td>
</tr>
<tr>
<td>4</td>
<td>Ability to cope with problem emotions (ACPE)</td>
<td>4, 9, 14, 19, 24, 29</td>
</tr>
<tr>
<td>5</td>
<td>Encouragement of positive emotions (EPE)</td>
<td>5, 10, 15, 20, 25, 30</td>
</tr>
</tbody>
</table>
The scale consists of 8 items. The maximum score is 40 and the minimum score is 8. The mean value of less than 12 is low, scores between 12 and 25.6 is moderate and the mean value of 25.6 and above is considered high. Higher the score, higher is the perception of career satisfaction.

3.38 Life Satisfaction

a) Description

It refers to assess the quality of their lives on the basis of their own unique set of criteria by subjective well being. Among the various components of subjective well being are identified: Positive affect, negative affect and life satisfaction. The Scale was borrowed by Andrews and Withey, 1976; Efraty and Sirgy, 1990, 1992; Efraty et al., 1997. This scale has 15- items.

b) Instructions

This was measured by five point scale. Please make a tick (✔) mark against which so ever suits you among the five alternatives and they

1- Very Dissatisfied  2- Dissatisfied  3 - Undecided
4- Satisfied  5- Very Satisfied

c) Scoring

The scale consists of 15 items. The maximum score is 75 and the minimum score is 15. The mean value of less than 30 is low, scores between 30
and 48 is moderate and the mean value of 48 and above is considered high. Higher the score, higher is the perception of life satisfaction.

3.39 Statistical Tools Used

The collected data were analyzed by using SPSS package version 16 and Amos 5. The Statistical tool used as

a) Descriptive Statistics
   i. It refers to the transformation of raw data into representative data namely, mean and standard deviation. So that they can be compared and interpreted

b) Chi Square
   i. Test is applied to know the difference between proportion in population and testing for interdependence /association between variables.

c) Independent T Test
   i. Analysis used to test whether the mean scores on some interval scaled are significantly different for two independent samples or groups.

d) Two –way ANOVA
   i. Analysis of the effects of two treatment variable on an interval scaled or ratio scaled dependent variable; a technique to determine if statistically significant differences in means occur between two or more groups.
e) **Simple Correlation**

   i. A statistical is used to measure of relationship between two variables.

f) **Analysis of covariance (ANCOVA)**

   i. Covariance is a measure of how much two variables change together and how strong the relation is between them. It can be defined as a type of ANOVA that is used to control for potential confounding variables. The ANCOVA is a general linear model which blends ANOVA and regression.

g) **Multiple Regression**

   i. An Analysis is used for measuring the linear association between the dependent and independent variable.
3.40 LIMITATION OF THE STUDY

Every research study has its own limitation and this study is no exception. The limitation of the present study are listed below

- The study of some of the hospitals does not encourage their employees to participate in the study. The resistance of the respondents due to fear, lack of interest and time is a major constraint and so steps were taken to reduce this error by giving assurance that it is only for academic purpose.

- Collecting data from the respondents is very difficult task. This is because they could not find time to spend for helping the academic researchers.

- As the study relies on data obtained from self report measures the responses are subjected to the bias and prejudice of the respondents. Hence 100% accuracy cannot be assured.

- Also, the study has considered only limited key variables while assessing quality of work life, work environment, emotional competence, personal effectiveness, career satisfaction and life satisfaction

- All the findings and observations made in the study are all purely based on the responses given by the respondents irrespective of their state of
mind. So the information given by the respondents need not be perfect at all times.

- Although great care was taken for precision, yet there may be certain gaps which need to be rectified.

This chapter has discussed about the research methodology. It has also discussed about the work done on the research design, sample procedure, method of data collection, pilot study, results, descriptions of questionnaires, hypotheses of the study and limitation and the fourth chapter discusses about analysis and interpretations.