

Chapter 3

**Research Methodology**

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## Chapter 3

### RESEARCH METHODOLOGY

#### 3.1 INTRODUCTION:

**Let us never consider ourselves as finished nurses.....We must be learning all our lives”**

---**Florence Nightingale**

“**Training** is a learning process that involves the acquisition of knowledge, sharpening of skills, concepts, rules, or changing of attitudes and behaviours to enhance the performance of employees”. Hence Training refers to a planned effort by an organization to facilitate employees’ learning of job-related competencies. These competencies include knowledge, skills, or behaviours that are critical for successful job performance in the immediate term or near future.

This is in contrast with **Development**, which is training that provides employees with competencies for anticipated future jobs and roles. The goal of training is for employees to master the knowledge, skill, and behaviours emphasized in training programs and to apply them to their day-to-day activities.

The Training and Development of nurses is considered important as the nurse has assumed an important position in the healthcare system since ancient times. The idea of continuing education in nursing is as old as organized nursing, but the concept of lifelong learning for the nurse has developed slowly. Nurses throughout the world now are called to work in a health care environment that is undergoing reform as never before imagined<sup>1</sup>. Hospitals are becoming increasingly diverse, cultural melting-pots where nurses work on the front lines of race, religion, and gender.<sup>2</sup> Medical technology and science are developing rapidly, resulting in the need to learn new skills and

procedures and acquire the knowledge necessary to operate complex equipment.<sup>3</sup> Patient needs have become more complicated; nurses must implement requisite competencies in leadership, health policy, system improvement, research, evidence-based practice, and teamwork and collaboration in order to deliver high-quality care. Nurses are called upon to broaden their scope of practice and to master technological tools and information management systems while coordinating care across teams of health professionals.<sup>1</sup> Doctor-time is limited, but nurses deliver hour-to-hour care and interact with the families of patients. It requires the ability to listen and understand people from all walks of life. Whatever the tools and technologies, the job of the nurse will remain caregiver and advocate for the most sick and vulnerable members of our communities.<sup>2</sup>

### **3.2 Topic of Research and its Importance**

#### **3.2.1 The Topic**

The topic of research as approved by University of Pune for the thesis is

**“A Comparative Study of Training and Development Practices for Nurses in Leading Public and Private Hospitals in Pune City”**

#### **3.2.2 Importance of the research:**

In India, Nurses are often critically judged based on their communication abilities and professional skill. More than often cited reason is their lack of knowledge/awareness of the rapidly changing healthcare scenario. Hospital personnel in general fail in developing their excellence in the face of latest developments on medical sciences. This draws our attention on the management of medical institutions engaged in educating and training the hospital personnel of tomorrow. Does it have any connection with the basic nursing course and the training programs conducted for these nurses? Reports indicate that nursing lacks clear career pathways and mechanisms for

promotion; in-service training is rare (except in the best corporate hospitals); pay is low (especially in small private hospitals); and working conditions are often inadequate, lacking sufficient staff, equipment and infra-structure<sup>4,5</sup>

The stark difference in the quality of service provided by the public hospital and private hospitals also comes into picture. The Indian health system is pluralistic, comprising public, private and voluntary sector facilities, of which the private sector is by far the largest provider.<sup>6</sup>

Since 2005, there has been enormous government investment into modernising and expanding India's public healthcare system through the setting up of a new initiative - the "National Rural Healthcare Mission".<sup>7</sup> Health system reform is constrained however by an acute shortage of health workers at every level.<sup>8</sup> In addition, poor health system governance (i.e. inadequate systems to monitor and regulate training institutions, professional practice and clinical standards within different settings) has been identified as a critical factor impeding efforts to improve quality and accountability, in both private and public sectors.<sup>9</sup>

It has been seen that most of the people go to private hospitals and prefer them over any other option. A public hospital is considered to be a preferable option for the not-so-rich lot of people, who, despite acute illness, can't afford the heavy fees of a private hospital. The number of facilities and the kind of individual care and attention given to the patient in a private hospital is undeniable.

As nurses are the most important caregivers in both these sectors, nursing care factor comes under purview. The nurses in both the sectors undergo the same basic qualifying nursing course. Then is it the quality of training and development programs or The In-service education of private hospital nurses, which gives them a definite edge over the public hospital nurses. Are there any other factors, too, which come into play?

In most public sector healthcare facilities, staff nurses are recruited from the GNM cadre (diploma-holders) only. Studies suggest that BSc graduates tend to seek clinical work in the private sector but often view this as a short-term strategy to gain requisite experience to enable overseas migration.<sup>10</sup> Post-registration BSc and MSc graduates are reported to move predominantly into educational positions in the public and private sectors.<sup>11</sup> Thus, as in many countries where clinical nursing carries a low status, academic qualifications are valued as a potential route out of clinical practice into higher status and better paid jobs in education.<sup>12</sup>

Based on this common perception about nurses, a compelling need to investigate the correlation between their training and performance was identified.

Through the interaction with Nursing Superintendents/Directors, Nurse Educators (NE), Trainers, Doctors and few nurses, it was known that no such comparative study conducted so far on aspects of training for nurses such as their different types and overall quality, effects on efficiency, morale, job satisfaction, improved performance, cost effectiveness of training programs and so on.

After studying the contents and coverage of the nursing courses, it was felt necessary to study and compare the training and development programs implemented for nurses in different hospitals. Training and development programs for nurses include the program conducted during their employment tenure. Nursing course is not the consideration for the study. Training and development programs during the course of the duty of the nurses are considered. These training and development programs/ sessions may be 'on the job' or 'off the job'.

### 3.3 The study is focussed on the following:

- The current training and development programs existing in private and public hospitals
- The opinion and satisfaction of nurses in both sectors with the existing training programs
- The needs and requirements of the nurses with regard to new training programs
- To design an evaluation model for the training programs undertaken in both sectors

### 3.4 Terminologies and concepts related to research

3.4.1 Public Hospitals: Public Hospitals are those run by the Central Government, State Government or local bodies on non-commercial lines<sup>13</sup>

**Public hospitals** are entirely managed on the government funding. Everything from the construction, fees of the doctors, equipment, medicines, nurses and other employees' salaries is being taken care of by the local government body. These hospitals do not run for profit<sup>14</sup>

3.4.2 Private Hospitals: Private hospitals are generally owned by a doctor or a group of doctors. These are normally run on commercial lines<sup>13</sup>

A **Private hospital** is one which is owned and governed by a person or many people who managing the complete finances. Not just finances, even the whole funds process and the administration, staff, all the doctors, everything is under control of that private body. These hospitals are managed with the intent of profit making<sup>14</sup>

### 3.4.3 Training and Development:

a. Continuing Nursing Education: "Educational activities primarily designed to keep registered nurses abreast of their particular field of interest and do not lead to any formal advanced standing in the profession"<sup>15</sup> Continuing Nursing Education (CNE) consists of various educational activities that maintain and develop the knowledge, skills and professional practice of nurses / midwives.

Nurses / Midwives need to maintain their competencies through continuing nursing education in order to provide safe patient care and to keep pace with advances and innovations in healthcare<sup>16</sup>.

b. In-service Education: "Planned instructional or training program provided by an employing agency in the employment setting and is designed to increase competence in a specific area"<sup>16</sup>.

In-service Education is one aspect of continuing education, but the terms are not interchangeable

c. In-service Training: In-service training can be described as training that has been systematically planned, is carried out by a trainer within an institution and takes place during normal working hours<sup>17</sup>

In-service training is the training given by the employer to an employee to enable the individual to execute a specific activity efficiently. It is part of continuing education. In-service training is deliberately planned to meet the needs of the employer in order to make up deficiencies in technical and scientific information in an employee, such as teaching of techniques and procedures that the employee has to execute in her/his job (Douglas, 1996:281)

### 3.4.4: Nurses:

a. Registered nurse: An individual authorized and capable of practising nursing or midwifery independently by virtue of registration in terms of section 16 of the Nursing Act, 1978 (Act 50 of 1978). Such a person is accountable for prescribing, supervising and carrying out of the nursing regime, coordinating and integrating the multi-disciplinary

therapeutic regime based on diagnosing the needs and demands of a unique patient in a unique situation, establishing and managing a safe and adequate environment for patient care, assessing patient care situations based on scientific principles and skills, making nursing diagnoses and taking responsibility for her actions (SANC Terminology List, 1994:5; Kotze, 1998:10).

b. Nurse Educator: A **Nurse Educator** is a nurse who teaches and prepares licensed practical nurses (LPN) and registered nurses (RN) for entry into practice positions. They can also teach in various patient care settings to provide continuing education to licensed nursing staff<sup>18</sup>.

c. Director of Nursing: A **director of nursing** is a registered nurse who supervises the care of all the patients at a health care facility. The director of nursing has special training beyond the training of a staff nurse for the position that pertains to health care management, and in some places, a director of nursing must hold a special license in order to be employed in that capacity. The director of nursing is the one who is responsible for communicating between the nursing staff and the physicians at a health care facility. It is the director of nursing who communicates to physicians the needs of the patients<sup>19</sup>.

d. Matron: **Matron** is the job title of a very senior nurse in several countries. She is responsible for all the nurses and domestic staff, overseeing all patient care, and the efficient running of the hospital<sup>20</sup>

e. ANM: Auxiliary Nursing Midwifery (ANM) is a diploma course which deals with the study of health care of various individuals. Apart from healthcare, it also encourages students to learn how to take care of equipment and their upkeep, setting up of operation theatre, providing medication timely to the patients and maintaining records<sup>21</sup>.



f. **GNM:** General Nursing & Midwifery (GNM) course is to prepare a qualified General Nurse who will function as member of a Health Team beginning with consultancies for first level position in both Hospital and community Health Services especially in Rural areas. The school prepares the students to develop an aptitude for nursing and to provide the required knowledge and skills to give comprehensive nursing care to patients of all types of illness<sup>22</sup>.

3.4.5 **NABH:** (National Accreditation Board for Hospitals and Healthcare Providers)

**NABH** is a constituent board of Quality Council of India, set up to establish and operate accreditation and allied programs for healthcare organizations. The board is structured to cater to much desired needs of the consumers and to set benchmarks for the progress of health industry. NABH is an Institutional Member of the International Society for Quality in Health Care (ISQua)<sup>23</sup>

### **3.5 Tools used for Research**

The data collected are of two types - primary data and secondary data.

3.5.1 For primary data a questionnaire was formulated for the nurses. The details of this questionnaire are provided further in 3.11. Respondents (nurses) were interviewed at the same time the questionnaire was administered.

3.5.2 Secondary data were collected through different books, magazines, articles from journals and websites to formulate the conceptual framework.

### **3.6 Objectives and Scope of Research:**

#### **3.6.1 Objectives of Research:**

- To get an overview of the existing training and development programs conducted for the nurses
- To study the methodology for conducting these training and development programs.
- To study the present methods for measuring effectiveness of these training and development programs.
- To compare training and development programs and their aspects for nurses in Private and Public Hospitals.
- To measure the satisfaction of nurses as well as other aspects of the training and development programs on various parameters.
- To develop a training evaluation model for the nurses' training and development programs

#### **3.6.2 Scope of the Research**

- The scope of the research is confined to the following types of hospitals: Government, Municipal, Trust and Private Hospitals in the Pune City. The list of hospitals selected is given in 3.10
- The hospitals are selected in consensus with the research guide, on the basis of their ownerships mainly Private and Public Sector hospitals which are further classified as Government, Municipal, Trust and Private and.
- The data were collected through a detailed questionnaire.
- Interviews and conversations with the nurses, nurse educators, nurse directors are conducted as a part of study.

### **3.7 Hypotheses:**

- Training and development programs for nurses are found effective and cater to the required needs.

- Training and development programs for nurses in public hospitals are less updated and need based in comparison with Private hospitals.
- The nursing staff in private hospitals are more satisfied with the training and development programs as compared to those in public hospitals.
- The senior nursing staff is found more satisfied with the training and development programs compared to junior nurses.

### **3.8 Research design and method**

The study design was qualitative, exploratory, descriptive, contextual and phenomenological in nature.

The study was qualitative as it endeavoured to study the in-service training programmes as experienced by registered nurses in their institutions. Tutty, Rothery and Grinnel (1996:4) and Mason (1996:4) agree that a qualitative research approach can be used to study the person in her/his natural environment in order to find out what captivates or distresses them. It focuses on exploring their life experiences.

The study was exploratory as it focussed on how registered nurses experience the in-service training programmes in their particular institutions. According to Talbot (1994:90), an exploratory study aims to uncover the relationships and dimensions of a phenomenon.

The study was descriptive as the experiences of the registered nurses relating to in-service training programmes were described. Burns and Grove (1997:38) contend that descriptive research provides an accurate account or portrayal of characteristics of a particular individual, situation or group.

The proposed study was also phenomenological, as the registered nurses who had experienced the described situation were questioned with regard to their experiences.

### 3.9 Ethical considerations

The researcher made it a priority to ensure protection of the rights of participants in this study by ensuring that the ethical principles were considered throughout the study. These include maintenance of confidentiality and anonymity and obtaining of informed consent from the institutions involved, as well as from each participant. The participants were given the option to withdraw from the research at any time. The researcher ensured the quality of the research by informing participants fully about the goal of the study, the method of research and what was expected of them. She explained how results would be used and published and that confidentiality and anonymity would be maintained throughout

### 3.10 Universe and Sample

3.10.1 As based on the scope of the study above, hospitals from the Public and Private sector in Pune city are considered (**Annexure 3.1**)

**Table 3.1: Universe and Sample Size**

		Total	Surveyed
<b>PUBLIC SECTOR</b>	Hospitals	13	4
	Nurses in Hospitals surveyed	1360	242
<b>PRIVATE SECTOR</b>	Hospitals	21	6
	Nurses in Hospitals surveyed	1260	341

### **Stratified Convenience Sampling was used for the study**

In the **PUBLIC SECTOR**, the main **State Government Hospital** of Pune- Sassoon Hospital was surveyed.

Also the Pune Municipal Corporation Health Department granted permission for survey in three different **Municipal Hospitals** in Pune namely:

Kamala Nehru Hospital (General hospital)

Sonawane Hospital (Obstetrics and Gynecology)

Naidu Hospital (Infectious Disease Hospital)

Considering the fact that there are many private and trust hospitals in Pune, renowned private hospitals with more than 100 beds and a schedule of training programs in place for nurses according to NABH policies were taken into consideration.

On the basis of these criteria, three hospitals from each category were considered for study in **PRIVATE SECTOR-**

#### **Private Hospitals**

Noble Hospital

Sancheti Institute of Orthopedic and Rehabilitation

Oyster and Pearl Hospital

#### **Trust Hospitals**

Bharati Hospital

Jehangir Hospital

Sane Guruji Hospital

The total number of nurses and the number of respondents in each hospital are shown in the table:

**Table 3.2: Total Number of Nurses and Number of Respondents**

Sector	Category	Name of Hospital	Total no. of nurses	Number of respondents	Percentage of respondents
PUBLIC	State Government	Sassoon	1200	201	16.75
	Pune Municipal	Kamala Nehru	90	24	26.66
		Sonawane	35	9	25.71
		Naidu	35	8	22.86
PRIVATE	Private	Noble	200	141	70.50
		Sancheti	150	39	26
		Oyster and Pearl	110	21	19.09
	Trust	Jehangir	300	46	15.33
		Bharati	380	70	18.42
		Sane Guruji	120	24	20
<b>Total</b>			<b>2620</b>	<b>583</b>	<b>22.25</b>

### 3.10.2 Sample Size Determination for Finite Population

Sample size was determined using sample size determination by mean method.

The mean method was used because variables in study were measured using a 5-point measurement scale.

Formula 
$$n = \frac{z^2 + s^2}{e^2}$$

Where, 'z' is the standard score associated with confidence level (95% in the current case). Hence standard scores equals to 1.96 (borrowed from normal table)

'S' is the variability in the data set, computed as a ratio of range / 6. Range is equal to 5-1 = 4 (the difference between minimum and maximum value in the 5point scale). 6 refers to ±3 standard deviation values on the X axis of the standard normal curve, which takes in all the data set in study.

Hence range = 4/6 = 0.66

E is the tolerable error = 5% (in the current study).

$$n = \frac{1.96^2 * 0.66^2}{0.05^2} = 668$$

N (population) = 2620

When the sample size n is not small in comparison with the population size N (i.e., more than 5% of the population is sampled) so that n/N > 0.05, (in this case it is 0.25), a finite population correction factor (fpc) is used to define both the standard error of the mean and the standard error of the proportion.

Finite population correction factor  $\sqrt{\frac{N-n}{N-1}}$

$$\text{Sample size } n = \frac{1.96^2 * 0.66^2}{0.05^2} * \sqrt{\frac{2620-668}{2619}} = 577$$

**A buffer sample of 583 was selected for the study.**

### 3.11 Pilot Study

Pilot study was conducted at Noble Hospital, which is also one of the hospitals of the main research through questionnaire and interviews. Suggestions from Nursing Directors and Nurse Educators were taken into consideration while forming the questionnaire for the survey. 141 nurses out of 200 were surveyed for the pilot study. The reliability Cronbach Coefficient of the Instrument for the research yielded high value as 0.79

### **3.12 Data Collection (Details of the Questionnaire)**

Data were collected through survey questionnaires and personal interviews.

Permission was taken from the appropriate authorities of each hospital before administering the questionnaires to the respondents

Details of the Questionnaire: **(Annexure 3.2, 3.3)**

Following the seven questions about the demographic details of the respondents, the main questionnaire consists of 77 questions.

The question relating to the identity of the respondent was kept optional in order to elicit honest opinions from them.

The 77 questions were divided into groups from A to J

Group A has nine questions about the type and nature of training programs that the respondent has attended. The respondents were expected to tick mark any one of the 3 responses: too basic/ appropriate/ too advanced.

Group B has nine questions enquiring about the number of times; the respondent has attended the particular training program: 4 times a year/ twice a year/ once a year/ ongoing

Group C to Group I have rating questions where the respondent has to rate the statement on a 5 to 1 scale, 5 being the highest score and 1 being the lowest score. The statements are related to training programs/ sessions, Trainers, Trainees, Training Methods Used during the Program, Venue, Facilities provided during the Program, and Benefits/ Outcomes of Training Programs. The respondent is asked to circle the number to indicate satisfaction level.

Group C with twelve questions rates the quality of the training programs conducted in terms of content, material, duration, cost-effectiveness etc.

Group D has nine questions and rates the Trainers on the basis of their knowledge, presentation and delivery.

Group E having five questions rates the trainees that are the respondents themselves on their participation and understanding of the training programs.

Group F with six questions rates the training methods used during the program and the preference of the trainees.

Group G rates the Venue with three questions on the basis of location, distance, lodging and conference facilities provided.

Group H has five questions and rates other facilities like food, transport, audio video provided during the training programs.

Group I has 10 questions that ask the respondent to rate the benefits that they have received from the training programs.

Group J has question numbers 70 to 72 as multiple choice questions and 73 to 77 are open ended. The respondents were expected to answer in brief, the different questions asked about the training programs in the space provided after the question.

### **3.13 Methods used for Analysis**

Data collected were tabulated question wise. Data entry was done for each option selected by the respondents

The statistical analysis for testing the hypothesis is carried out using SPSS software and conclusions drawn from them

For interpretation of data, graphs and simple bar diagrams have been used.

For comparison and analytical study, tabular presentation has been used.

Tables have been used for applying statistical tests like Friedman chi-square, Independent sample t-test, chi-square contingency test, for establishing hypotheses and achieving objectives of the research.

### 3.14 Research Schedule:

Table3.3: Research Schedule

No.	Particulars	Duration
1	Date of Registration of topic of research	9-9-2010
2	Reading on the topic. Creating the foundation of research. Deciding the methodology of study and research. Selection of sample size	2011 to 2012
3	Pilot study to formulate questionnaire and its rough draft. Meeting the concerned authorities and finalization of Questionnaire	March 2013 to October 2013
4	Start of the survey. Personally meeting the respondents with the questionnaire and conducting interviews.	December 2013 to October 2014
5	Data entry in the formatted tables made for the analysis. Data analysis from the tabulation including the calculation of percentages, scores. Drawing inferences from the analysis.	November 2014 to February 2015
6	Finalization of the conclusion and recommendations from the analysis.	February 2015 to March 2015

3.15 Based on researcher's own experience in the medical and management field, discussion with colleagues and with principles suggested in theory, questionnaire was designed for the nurses. The important aspects were also discussed with the experts in the field through personal interviews. The data collected in these different ways is analyzed and included in the next chapter.



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