

**REGISTERED NURSES' KNOWLEDGE REGARDING NEUROLOGICAL  
EXAMINATION: A DESCRIPTIVE STUDY**

**Ms. Ekta S Patel**

Assistant Professor, Medical Surgical Nursing Dept.,  
Sumandeep Nursing College,  
Sumandeep Vidyapeeth Deemed to be University,  
Piparia, Waghodia, Vadodara - 391760, Gujarat, India.  
Contact No: 9687599195,  
Email ID: Mail2ektapatel@gmail.com

**ABSTRACT**

**Background of the study:** A systemic clinical assessment should be done by nurses to provide complete quality care to the patient. The more accurate assessment is, the more quality output would be gain by nurses while caring the patient. A complete neurological examination could be challenging for nurses because of its complexity, hence thorough clinical teaching is important to carry out such activity by nurse.

**Objectives of the study:** The objectives of the study were to assess the existing knowledge of staff nurse regarding neurological examination and to identify association between knowledge score with selected demographic variables.

**Material and method:** An evaluatory research approach with descriptive research design was used. Total 150 Subjects were selected by using convenience sampling technique. The samples were nurses who are working in selected hospitals of Vadodara. Participants were informed about the study & written consent was taken prior to participation. The structured knowledge questionnaires were administered to assess knowledge regarding neurological examination. The data was analyzed by using inferential and descriptive statistics.

**Result:** Existing knowledge of nurses regarding neurological examination shows majority of nurses having average knowledge. Out of 150 nurses 66.66% nurses have average knowledge score. While assessing association between knowledge score with selected demographic variable all the variable shows significant association with selected demographic variable, hence H1 is accepted.

**Conclusion:** The aim of this study was to determine the knowledge about neurological examination among staff nurses who are working in selected hospital of Vadodara. The study

concluded that, majority of participants were having average knowledge regarding Neurological Examination. There should be implementation of some in-service education program into the hospital for registered nurses to enhance their knowledge. Therefore they can update their practical skill for quality care.

**Key Term:** *Registered Nurses, Knowledge, Neurological Examination, Descriptive study.*

## **INTRODUCTION**

Neurological examination is done to determine whether the central nervous system dysfunction is present, to diagnose the disease of nervous system, and to localize the disease within the nervous system.<sup>1</sup> Although the diagnosis of disease is responsibility of the physician but the advanced practice nurse also may conduct the neurological examination. It is the purpose of the data collection that differentiates the medical practice from nursing practice.<sup>2</sup>

The nurse should perform the neurological examination to determine whether central nervous system dysfunction is present or not, to identify the functional deficit and how they impact on the individual ability to function in the activities of daily livings and other aspects of life, and to determine the human responses to actual or potential health problem precipitate by the dysfunction.<sup>3</sup> The data collected creates a database for planning care that is patient centered. Advanced practice nurse may overlap with the physicians in the purpose of examination based on legal authority to practice in advanced practice role.<sup>4</sup>

The neurological examination is proving complete database regarding patient's neurological condition. As part of patient's record, it is available to nurse and other health care providers to review. A review of these data by nurses may be helpful in identifying areas of special consideration in the neurological assessment, as well as special observations to be made and document. This will aid in potential multidisciplinary collaborative problems to dysfunctional identification. Example, a patient with coordination and balance problem would be supervised for ambulation for fall prevention. Although the nurse independently establish an individualized nursing database about patient's neurological function, collaborative practice and relationship suggest a sharing of information so that each participants understand on which database other participants providing care.<sup>5</sup>

The major component of neurological examination are to assess level of consciousness, mental status examination, cranial nerves, motor system, sensory system, cerebellar system, and reflexes. Neurological examination can be classified as screening or extended neurological examination.<sup>6</sup>

### **OBJECTIVES:**

1. Assess the existing knowledge of registered nurses regarding neurological examination.
2. Identify association between knowledge score with selected demographic variables.

### **HYPOTHESIS:**

**H1:** There will be significant association between knowledge score with selected demographic variable.

### **METHODS**

In present study quantitative research approach was adapted with Descriptive research design. Socio-demographic variables were stated as age, gender, qualification, area of work, and working experience in year. The study was conducted at selected hospital of Vadodara. Total 150 participants were selected by using convenience sampling technique. Inclusion criteria of participants contains; registered nurses who are working in selected hospitals; and nurses who are willing to participate in study. Structured knowledge questionnaire was used for data collection, which is consist of two part. Part one Questionnaire pertaining to selected demographic variables and part two containing structured knowledge questionnaire was used to assess the knowledge of Staff Nurses regarding neurological examination. Part two questionnaires contains 30 questions. The data collection was done within a given period of 3 weeks. Researcher has provided structure knowledge questionnaires for pretest. For this study, the data obtain were analyzed in respect to the objectives of the study by using descriptive and inferential statistics; Master data sheets were prepared; Mean, mean % and SD of the knowledge score of both groups were analyzed and Hypothesis tested.

### **RESULT S**

#### **Section: 1 Description of samples according to their demographic characteristics)**

In the present study the majority of nurses 66.67% age group 23-28years. Female participant were 83.33% more than male. 85% were having B,Sc nursing qualification, and 30% were

having 1-3 years of professional experience, 75% nurses are working in general wards of hospital.

**Section: 2 (Analysis of present status of knowledge of staff nurses regarding)**

**n=150**

<b>Sr. No</b>	<b>Knowledge score</b>	<b>Frequency</b>	<b>Percentage</b>
1	Poor	50	33.33%
2	Average	100	66.67%
3	Excellent	0	0

**Table 2: Distribution of respondents according to knowledge level.**

Above mentioned table interpret that, the distribution of respondent according to the knowledge level. It was noticed that 66.67% nurses are having average knowledge, 33.33% of nurses are having poor knowledge, and 00% nurses are having excellent knowledge.

**Section: 3 (Association between knowledge score with demographic variable)**

While assessing the association between knowledge score with selected demographic variable, the Chi Square test were used. At the significance level of 0.05, found that all the sociodemographic variables were significant. This states that, hypothesis is accepted.

**DISCUSSION**

If the assessment is poor, the rest of the process is a failure; for the assessment is the base on which the rest is built. The better the knowledge base of the nurse doing the assessment, the better the assessment will be. In healthcare, staff nurses need excellent initial training and ongoing support. This requires careful attention to a well-planned training design, delivery, and evaluation process.<sup>7</sup>

This study has its verdicts in line with other studies; pre experimental study was conducted in India on assessment of nurse's knowledge and effectiveness of structured teaching program, the result shown that before the intervention the nurses have less knowledge regarding neurological examination.<sup>8</sup> Another study has suggested that nursing leadership played a significant role in narrowing gaps in practice related to implementing best practices in neurological assessment and optimizing stroke survivor care.<sup>9</sup> Moon has conducted study and found that nurses has enough knowledge regarding neurological assessment and management should follow some in-service education guidelines to minimize the practice gap.<sup>10</sup>

## **CONCLUSION**

The study concluded that majority of nurses have average knowledge regarding neurological assessment. Hospital management should formulate strategies to encourage nurses to resolve actual problems following training or mentoring and to increase the depth and breadth of nurses' to perform the neurological examination. Since assessment is the base that determines all nurses' actions, further it must be strong for every person directly or indirectly involved in patient care.

**Conflict Interest:** No relevant conflict.

**Source of funding:** For this research study project researchers' own budget was used.

**Ethical Clearance:** It was obtained from concerned formal administrative authorities and informed consent was taken from the samples before data collection process.

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