



A study to assess the knowledge on lumbar puncture among III year B.SC(N)students at Narayana College of Nursing, Nellore, AP.



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Abstract: Aim: The aim of the study was to assess the knowledge on lumbar puncture among III year B.Sc (N) students at Narayana college of Nursing, Nellore, AP. **Objectives:** 1 To assess the level of knowledge on lumbar puncture procedure. 2. To find out the association between knowledge on lumbar puncture procedure with their socio demographic variables of III Yr B.Sc (N) Students. **Methodology:** A quantitative approach was used for this study the non experimental research design. The data collection was done by using structured questionnaire was adopted for this study. A total 100 samples selected by using Non probability convenience sampling technique. **Results:** Regards to knowledge on students, 8(8%) acquired A+ grade, 26(26%) got A grade, 33(33%) got B+ grade, 21(21%) got B grade, 7(7%) got C grade, 5(5%) got D grade. There was no significant association between socio demographic variables like age in years, Source of information, Did you attended any CNE programme, Language, Religion. **Keywords:** Assess, knowledge, Lumbar puncture, Nursing Students.

Introduction: Lumbar puncture should perform only after careful neurological examination. If possible, cranial computed tomography or magnetic resonance imaging for every patient should review carefully before lumbar puncture procedure. There are no absolute contraindications for lumbar puncture but certain cautions should be taken in patients with bleeding tendency, receiving anticoagulant medications, spinal epidural abscess, and patient with clinical signs of intracranial pressure include loss of consciousness, papilloedema, focal neurological defect and recent onset of seizure. Complications of lumbar puncture may include headache, backache, infection, lower limb weakness, subdural hematoma, bleeding or cerebrospinal fluid leak from the puncture site, nerve damage or herniation. Headache and backache are the most common complications post lumbar

puncture while infection.

Need for Study:

According to WHO (2018). There were a total of 362,718 lumbar puncture procedures done for CSF analysis, and meningitis. Including 273,612 (75%) among adults and 89,106 (25%) among children. Among children, the majority were performed on patient's =5 years old. Among the performed LPs, 136,764 (38%) were known to have occurred.

Statement of the Problems:

A study to assess the knowledge on lumbar puncture among III year B.Sc (N) students at Narayana college of Nursing, Nellore, AP.

Objectives:

➤ To assess the level of knowledge on lumbar puncture procedure.



➤ To find out the association between knowledge on lumbar puncture procedure with their socio demographic variables.

Operational Definitions

ASSESS: Assessment is a process by which information is obtained relative to some object or goal.

Knowledge: It refers to the skills and information practical understanding of lumbar puncture procedure.

Lumbar puncture: It is a diagnostic procedure used to collect cerebrospinal fluid in the CNS.

Nursing students: It refers to an individual who is studying in III year BSC nursing students at Narayana College of Nursing, Nellore, AP.

ASSUMPTIONS

The III year BSC nursing students have some knowledge on lumbar puncture procedure.

DELIMITATIONS

The study is delimited to:

1. III YEAR B.Sc (N) students
2. The sample size of 100
3. The setting of Narayana college of Nursing, Nellore, A.P.

Projected Outcome

The present study helps to identify the level of knowledge on lumbar puncture procedure among III year B.Sc Nursing students.

Research Approach:

Quantitative research approach was adopted

Research Design:

Descriptive research design was selected to assess the knowledge on Lumbar puncture procedure among III year BSC (N) students.

Settings of the study:

The study was conducted in Narayana College of Nursing, Nellore A.P. It is one of the best nursing colleges in Nellore. It is affiliated with Dr. NTR University of health sciences and recognized by Indian Nursing Council, New Delhi. It provides high academic standards to its students. The annual intake was 100 students. The college offers world class infrastructure unparalleled technical expertise with diligent faculty. The programmes included are B.Sc.

nursing, General Nursing, M.Sc nursing, Post B.Sc. nursing and Ph.D. Nursing. The students gain excellent academic and client exposure through various continuing nursing education programmes, conferences, workshops, enrichment programmes, an exhaustive library and visit of eminent personalities.

Population:

Target Population: The target population was all III year B.Sc. nursing students.

Accessible population: III year B.Sc. nursing students studying at Narayana College of Nursing.

Sample:

The sample was III year B.Sc. (N) students in Narayana collage of Nursing who fulfils the inclusion criteria.

Sampling size:

The sample size selected for the study was 100 III year BSC (N) students.

Sample Technique:

Non probability convenience sampling technique was adopted for the study.

Criteria for Sample Selection

Inclusion criteria:

The nursing students

- Who were studying III year B.Sc. (N) at Narayana College of Nursing.
- Who were available at the time of data collection
- Who were willing to participate in the study

Exclusion Criteria:

The Nursing Students

- Who are on leave
- Who are sick at the time of data collection
- Who were not available at the time of data collection

Variables of the study

Variables of the study were research variables and dependent variables and socio demographic variables.

Research Variables: The knowledge on Lumbar puncture procedure.

Demographic Variables: The demographic variables such as Age in year, Source of information, Did you attended any CNE programme, Language, Religion.



Description of the tool: The tool was developed with the help of extensive review from various text books, journals, internet sources. The tool was developed to assess knowledge on III year B.Sc.(N) students on lumbar puncture in Narayana College of Nursing at Nellore. The tool will be consist of two parts.

Part - I: Deals with demographic variables such as Age in year, Source of information, Did you attended any CNE programme, Religion, Language.

Part - II: It consists of 34 structured questionnaire to assess the knowledge on lumbar puncture procedure among III year B.Sc. nursing students.

Score Interpretation:

Each correct answers, scored as “1” and wrong answers scored as “0” total score was 34. It was assess the knowledge on lumbar puncture procedure among III year B.Sc. (N) students.

Grade	Percentage	Score
A+	91-100%	34-31
A	81-90%	30-26
B+	71-80%	27-23
B	61-70%	22-19
C	50-60%	18-14
D	<50%	<14

Content Validity:

Content validity of the tool was obtained from the experts in nursing department. The suggestions and options of the experts was included and the tool was modified before conducting main study of the data collection.

Reliability: The reliability of tool was measured by using split half method, the reliability of tool will be $R=2r/1+r$

Feasibility:

The tool was tested for feasibility by conducting the pilot study. The pilot study result shows that the total was feasible to conduct the main study.

Ethical clearance:

Ethical clearance certificate was obtained From Lumbar puncture procedure from III year BSC (N) students.

Consent:

Written consent was taken before going to conduct the study from III year BSC (N) students.

Justice:

Study was helpful to assess the knowledge on Lumbar puncture procedure.

Beneficence:

The study was useful in gain of knowledge on Lumbar puncture procedure.

Maleficence:

The study was no harm to III year BSC (N) students participated in the study any students.

Pilot study:

After obtaining formal permission from the Principal of Narayana College of Nursing, Nellore. The pilot study was conducted for 3 days from 24.10.2021 to 25.10.2021 in Narayana College of nursing, Nellore. 10 samples were selected by using convenience sampling technique. Structured questionnaire consist of 34 questions. Each sample was taken nearly 30 minutes to complete the tool. The collected data was analyzed by using the descriptive and inferential statistics. Based on the pilot study result conducted that tool is reliable for conducting the main study.

Data collection Procedure:

The data collection procedure was done for a period of 2 weeks. After obtaining the permission from nursing dean, data collection was started. 100 samples were selected by using non probability convenience sampling technique. III BSC(N) students who fulfilled the inclusion criteria were selected and confidentiality of shared information was assured. Structured questionnaire was adopted to collect the data, questionnaire was given to III year BSC (N) students and given 30 minutes to complete the questionnaire. Each day 5 samples were selected between 9 am to 12 pm. Data was organized and presented in the tables and figur

Plan for data analysis: The data was analyzed in the terms of objectives of the study by using descriptive statistics and inferential statistics.



Data Analysis	Method	Remarks
Descriptive statistics	Frequency, Percentage distribution of	Distribution based on socio demographic variables
	Mean and Standard Deviation	To assess the level of knowledge regarding lumbar puncture.
Inferential Statistics	Chi-Square test	To find out the association between the level of knowledge regarding lumbar puncture among III year B.Sc. Nursing students with the socio demographic variables

Table No - 1: Frequency and percentage distribution based on their level of knowledge on Lumbar puncture procedure among III year BSC (N) Students. (N=100)

Level of knowledge	Fre(f)	Per(%)
A+	8	8
A	26	26
B+	33	33
B	21	21
C	7	7
D	5	5
Total	100	100

Table No -1. Shows that with regard 8(8%) procured A+ grade, 26(26%) procured A grade, 33(33%) procured B+ grade, 21(21%) procured B grade, 7(7%) procured C grade, 5 (5%) procured D grade group regarding knowledge on Lumbar puncture procedure.

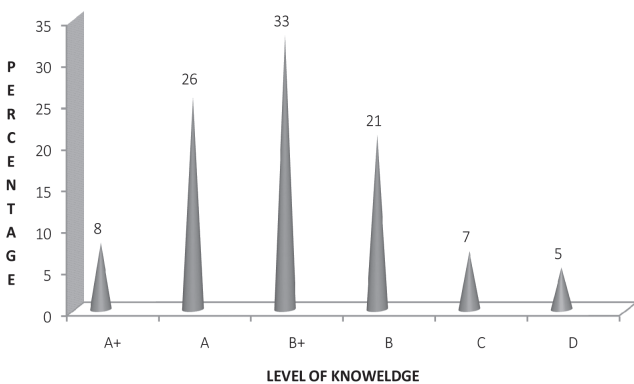


Fig No-1: percentage distribution on lumbar puncture procedure among III year BSC(N) students.

Regarding association between the levels of knowledge on Lumbar puncture procedure among III year BSC (N) students, with their selected socio demographic variables.

There was no significant association between socio demographic variables like age in years, Source of information, Did you attended any CNE program, Language, Religion.

Cconclusion: The present study concluded that 8(8%) procured A+ grade, 26(26%) procured A grade, 33(33%) procured B+ grade, 21(21%) procured B grade, 7(7%) procured C grade, 5 (5%) procured D grade group regarding knowledge on Lumbar puncture procedure, results shows that III year B.Sc(N) students has aware on Lumbar puncture procedure.

References

- Williams & Wilkins; “The manual of nursing procedures and practice”, Published by Wolters Kluwer, Second edition, page number: 197
- Sampath Madhyastha; “Manipal Manual of Anatomy”, Nervous system and spinal cord, Third edition Page Number :290-292.
- “Introduction of lumbar puncture” available in: <http://en.m.wikipedia.org>.
- Catherine L Tacon, “contraindications of lumbar puncture retrieved from pudmed.com.”
- Williams & Wilkins; “Manual of nursing procedures and practice , procedure of lumbar puncture, published by Wolters Kluwer, 10 Edition, Page number 480-481.”
- Clarence Mwelwa Patrick; patient position during lumbar puncture, Ashford and St Peter’s Hospitals NHS Foundation Trust publications, 3 edition, page no: 58-62.

NET REFERENCES:

- <http://en.m.wikipedia.org/wiki/swatch>
- <http://google.websight.com>
- <http://www.healthweb.org>
- <http://www.healthweb.org/browse.cfm>