



A study to assess the knowledge regarding abdominal examination among third year B.Sc Nursing students at Narayana College of Nursing, Nellore, AP.



Dr. Indira. A
Principal
Narayana College of Nursing,
Chinthareddypalem,
Nellore.

Abstract: Examination is actually the first step of physical examination and key component of diagnostic approach. An abdominal examination is a portion of the physical examination which a physician or nurse uses to clinically observe the abdomen of a patient for signs of disease. The purpose of the abdominal exam is to get more information that could indicate what is causing the patient's symptoms. **Objectives:** **1.** To assess the level of knowledge regarding abdominal examination among third year B.Sc Nursing Students. **2.** To find out the association between levels of knowledge regarding abdominal examination among third year B.Sc Nursing Student. **Materials and Methods:** A quantitative research approach and descriptive research design was adopted. 100 participants who fulfill the inclusion criteria were selected by non probability convenient sampling technique. Structured questionnaires were used to collect data. The data was analyzed in terms of objectives of the study using descriptive and inferential statistics. **Results:** Out of 4(4%) were got A+ grade, 25(25%) were got A grade, 20(20%) were got B+ grade, 36(36%) were got B grade, 12(12%) were got C grade, 3(3%) were got D grade knowledge on abdominal examination. **Key words: abdominal examination, Nursing students.**

Introduction: Examination is actually the first step of physical examination and key component of diagnostic approach. Inspection is a major method during general examination combining with palpation auscultation and percussion. The examination mainly aims to assess the patient general condition and detect manifestation of internal and systemic disease.

An abdominal examination is a portion of the physical examination which a physician or nurse uses to clinically observe the abdomen of a patient for signs of disease.

The purpose of the abdominal exam is to get more information that could indicate what is causing the patient's symptoms. The physician gains information by inspecting, auscultating, palpating, and

percussing the abdomen.

The study concluded that chronic abdominal wall pain is easily diagnosed on physical examination and can often be rapidly treated. Any physician treating patients with abdominal pain should be aware of this condition. Further comparative treatment trials will be needed before a validated treatment algorithm can be established.

Objectives:

- ❖ To assess the level of knowledge regarding abdominal examination among third year BSC Nursing Students.
- ❖ To find out the association between levels of knowledge regarding abdominal examination among third year BSC Nursing Student.



Need for the Study: Examination of the abdomen is an art/aced with science. Sceptics question the diagnostic reliability of the physical signs of abdominal disease. The strength of physical diagnosis must be conceded to some extent. Abdominal examination can be performed through firstly inspection, consists of visual examination of the abdomen with not made of the shape of the abdomen, skin abnormalities detected on inspection provide clues to intra-abdominal pathology these are further investigated with auscultation and palpation.

Examination of the abdomen should begin with light scouting palpation in all four quadrants looking for and noting masses, guarding^voluntary or involuntary and tenderness both with application of pressure and its release that is rebound tenderness that reflects peritoneal inflammation. Percussion 15 by applying a pleximeter usually the middle finger of the left hand firmly to chest / abdominal wall to displace any intervening air and to absorb the energy when the middle pharynx is struck with the percussor or plexor usually the middle finger of the right hand that is flexed to form a right angle between the proximal and middle phalanges.

Auscultation which is recommended to precede palpation so as not to stimulate or depress resting bowel activity is accomplished by placing the diaphragm of the stethoscope lightly in close contact with the abdominal wall. Parenthetically the subterfuge of pressing the stethoscope firmly while pretending to listen may be used surreptitiously to test whether the unsuspecting distracted patient truly has abdominal tenderness.

An abdominal examination may be performed because the physician suspects a disease of the organs inside the abdominal cavity or simply as a part of a complete physical examination for other conditions.

Although an essential component of all routine

physical examinations, the physical examination of the abdomen is the key step in the evaluation of abdominal complaints such as pain, distension, enlarged organs or masses.

Problem Statement: A study to assess the knowledge regarding abdominal examination among third year BSC Nursing students Narayana College of Nursing Nellore AP.

Operational Definition:

Study: Study is the act of learning and spending time discovering information or an academic work or investigation about a particular thing or subject area.

Assess: Assess is the process of documenting usually in measurable terms, knowledge, skill attitudes and beliefs.

Knowledge: Refers to the information and awareness gained through education or it is a total knowledge regarding abdominal examination.

Abdominal examination: Examination of the abdomen through inspection, palpation, percussion and auscultation.

Nursing student: Student who are studying third year BSC Nursing in Narayana College of Nursing Nellore.

METHODOLOGY:

Research Approach: Quantitative research approach was adopted to assess the knowledge regarding abdominal examination among III rd year B.Sc.(N) students.

Research Design: Non experimental cross sectional descriptive research design was adopted to conduct the present study to assess the knowledge regarding abdominal examination among IIIrd year B.Sc.(N) students.

Settings of the study: The study was conducted in Narayana College of Nursing, Nellore A.P.

Population:

Target Population: The target population for the present study includes all nursing students.



Accessible population: The accessible population for the present study includes III year B.Sc nursing students studying in Narayana College of Nursing.

Sample: III year B.Sc (N) students who fulfill the inclusion criteria.

Sampling size: The sample size for the present study was 100 students of III year B.Sc (N) at Narayana College of Nursing, Nellore.

Sample Technique: Non probability convenience sampling technique was used to select the samples.

Criteria for sampling:

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 were not available at the time of data collection.
- Who were not willing to participate in the study

Variables: Variables of the study were research variables and dependent variables.

Research Variables: The knowledge of III year B.Sc (N) students regarding abdominal examination.

Demographic Variables: The demographic variables such as age, source of information, attended by CNE programme regarding abdominal examination.

Part - I: Deals with demographic variables such as age, source of information regarding abdominal examination.

Part - II: It consist of 27 structured questionnaire to assess the knowledge regarding abdominal examination among III year B.Sc nursing students.

Score Interpretation: Each correct answers, scored as “1” and wrong answers scored as “0” total score was 27. It was to assess the knowledge regarding abdominal examination among III year B.Sc (N)

students.

Grade	Percentage	Score
A+	91 - 100%	20 - 22
A	81 - 90%	18 - 19
B+	71 - 80%	16 - 17
B	61 - 70%	14 - 15
C	50 - 60%	11 - 13
D	<50%	<11

Ethical Consideration: Ethical consideration prior to data collection permission was obtained from the concerned authorities to conduct the study. Written consent was obtained from the III year BSc nursing students regarding willingness to participate in the study. Study subject were assured that information collected from them was confidential.

Informed Consent: By explaining nature and purpose of the study informed consent was obtained from III year BSc nursing students.

Justice: III BSc nursing students got opportunities to know on abdominal examination.

Beneficence: III year BSc nursing students

Maleficence: Study involves only collection of data and will not cause any harm to the III year BSc nursing students.

Veracity: The findings of the study was communicated to the students. So that appropriate measures can be taken for improve the level of knowledge.

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 year B.Sc nursing students who fulfilled the inclusion criteria were selected and the confidentiality of shared information was assured. Structured questionnaire was adopted to collect the data, questionnaire was



given to III year B.Sc Nursing students and given 30 minutes to complete the questionnaire. Each day 5 samples were selected between 9am to 12pm. Data was organized and presented in the tables and figures.

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

Table - 1: Frequency and Percentage distribution of III year BSc (N) students age. (N=100)

Age	Frequency	Percentage
a) 18- 20 years	67	67%
b) 21- 23 years	32	32%
c) 24- 26 years	1	1%
Total	100	100%

Table - 1: It illustrates that the age of III year BSc.(N) students 67(67%) are between the age group of 18-20 years, 32(32%) are between the age group of 21-22 years,1(1%) are between the age group 24-26years.

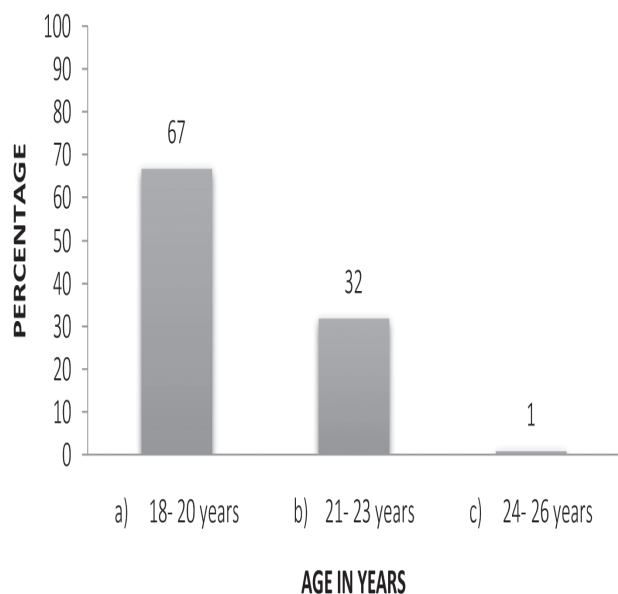


Fig-1 Percentage distribution of IIIrd year B.Sc.(N) students based on age.

Table - 2: Frequency and Percentage distribution of IIIrd year B.Sc.(N) students based on education.

(N=100)

Education	Frequency	Percentage
a) Secondary level	70	70%
b) Diploma	10	10%
c) Graduate	20	20%
Total	100	100%

Table - 2: Shows that with regard to Education 70(70%) are Secondary level, 10(10%) are Diploma and 20(20%) Graduate.

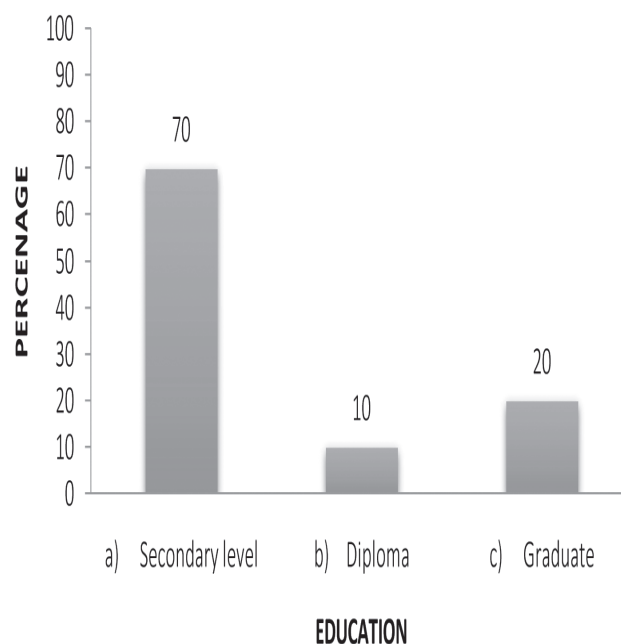


Fig.No - 2: Percentage distribution of IIIrd year B.Sc.(N) students based on Education.

Table - 3: Frequency and Percentage distribution of IIIrd year B.Sc. (N) students based on Religion.

(N=100)

Religion	Frequency	Percentage
a)Hindu	18	17%
b)Christian	80	78%
c) Muslim	2	2%
Total	100	100%

Table - 3: shows that with regard to the Religion 18(18%) students are Hindu, 80(80%) students are Christian, 2(2%) students are Muslim.

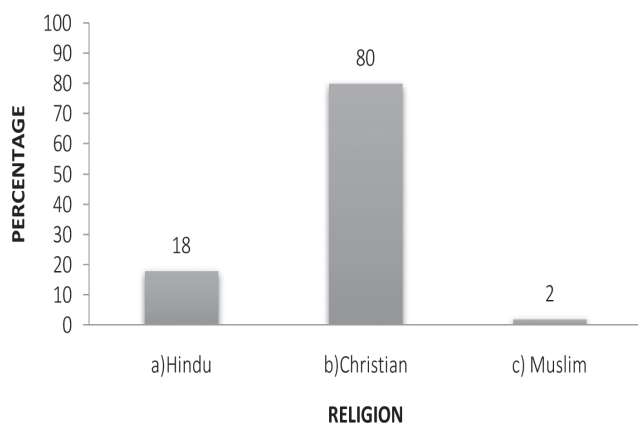


Fig.No. - 3: Percentage distribution of IIIrd year B.Sc.(N) students based on Religion.

Table No - 4: Frequency and percentage distribution of III year Bsc (N) students based on Source of information. (N=100)

Source of information	Frequency	Percentage
a) Text book	50	50%
b) Journal	7	7%
c) Mass media	30	30%
d) Family and friends	13	13%
Total	100	100%

Table - 4: shows that with regard to the source of information 50(50%) students are got information from Text books 7(7%) students got information from journal 30(30%) students got information from mass media and 13(13%) students are got information from health personnel.

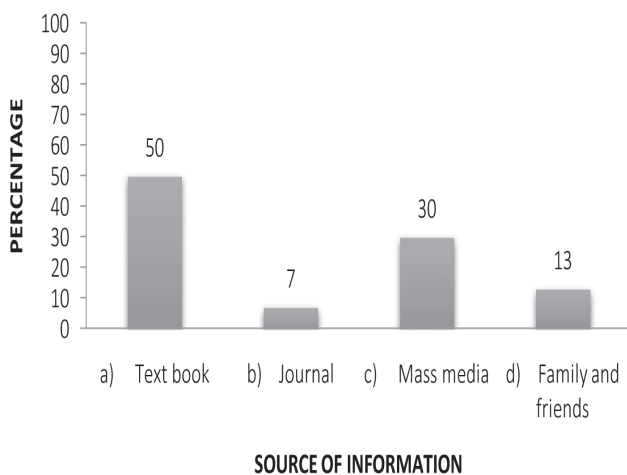


Fig.No.4: Percentage distribution of IIIrd year B.Sc.(N) students based on source of information.

Table - 5: Frequency and Percentage distribution of level of knowledge on Abdominal examination among IIIrd year B.Sc.(N) students. (N=100)

Level of knowledge	Frequency	Percentage
A+	4	4%
A	25	25%
B+	20	20%
B	36	36%
C	12	12%
D	3	3%
Total	100	100%

Table - 5: Converts the level of knowledge on Abdominal examination among IIIrd B.Sc.(N) students out of 100 students 4(4%) were got A+ grade, 25(25%) were got A grade, 20(20%) were got B+ grade, 36(36%) were got B grade, 12(12%) were got C grade, 3(3%) were got D grade.

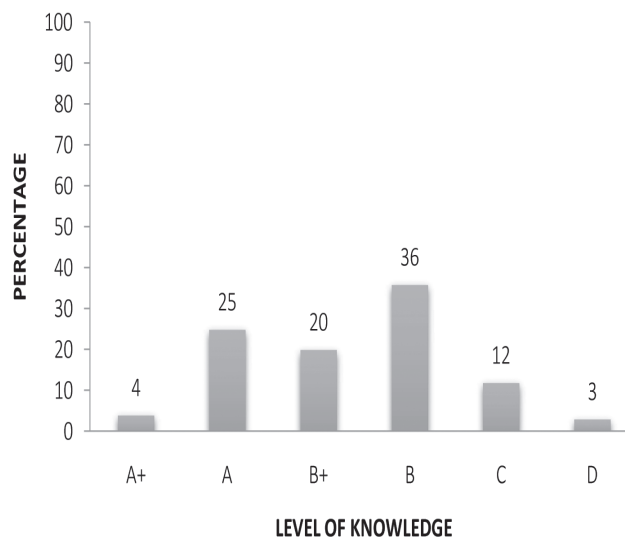


Fig.No - 5: The Percentage distribution of level of knowledge on Abdominal examination among IIIrd year B.Sc.(N) students.

Table - 6 : Mean and Standard Deviation of level of knowledge on abdominal examination among IIIrd B.Sc.(N) students. (N=100)



Category	Mean	SD
Assess the level of knowledge on abdominal examination among IIIrd year B.Sc.(N) students	18.78	3.83

Table - 6: It depends between that mean knowledge among IIIrd year B.Sc.(N) students is 18.78 with Standard deviation of 3.83.

Table No. - 7: Association the level of knowledge regarding abdominal examination among IIIrd year BSc(N) student in Narayana college of Nursing with their related socio demographic variable.

Demographic variables	A+		A		B+		B		C		D		Chi square (x ²)
	F	%	F	F	%	%	F	%	F	%	F	%	
Age													CV :15.62 TV :18.3 Df=10(NS) P=0.05
a.18-20 years	2	2	14	14	17	17	23	23	9	9	2	2	
b.21-23 years	2	2	11	11	2	2	13	13	3	3	1	1	
c.24-26 years	-	-	-	-	1	1	-	-	-	-	-	-	
Education													CV:22.60 TV:18.3 Df=10(S) P=0.05
a. secondary level	2	2	21	21	15	15	25	25	4	4	3	3	
b. Diploma	2	2	1	1	2	2	4	4	1	1	-	-	
c. Graduate	-	-	3	3	3	3	7	7	7	7	-	-	
Religion													CV:8.39 TV:18.3 Df=10(NS) P=0.05
a. Hindu	2	2	4	4	4	4	6	6	2	2	-	-	
b. Christian	2	2	21	21	15	15	30	30	9	9	3	3	
c. Muslim	-	-	-	-	1	1	-	-	1	1	-	-	
Source of information													CV:8.753 TV: 24.99 df:15 NS P:0.005
a. Text book	2	2	10	10	10	10	20	20	6	6	2	2	
b. Journal	1	1	2	2	2	2	2	2	-	-	-	-	
c. Mass media	1	1	8	8	6	6	11	11	4	4	-	-	
d. Family and friends	-	-	5	5	2	2	3	3	2	2	1	1	



Table - 7 : Show that the association between the level of knowledge on abdominal examination among IIIrd year BSc (N) students with their selected socio demographic variables.

➤ With reference to age, calculated value is 15.62 and table value is 18.3 at $p > 0.05$ level. The Calculated value is less than the table value. so, there is no significance between level of knowledge on abdominal examination.

➤ With concern to education, calculated value is 22.60 and table value is 18.3 at $p > 0.05$. The calculated value is greater than the table value. So there is a significance between education and level of knowledge on abdominal examination.

➤ With concern to religion, calculated value is 8.39 and table value is 18.3 at $p > 0.05$ level. The calculated value is less than the table value. So there is no significance between religion and level of knowledge on abdominal examination.

➤ With context to source of information, the calculated value is 8.753 and table value is 24.98 at $P > 0.05$ level. The calculated value is less than the table value. So, there is no significance between source of information and the level of knowledge on abdominal examination.

Discussion: The aim of the present study was to assess the knowledge on abdominal examination among IIIrd year B.Sc.(N) students at Narayana College of Nursing, Nellore A.P. The sample for present study include student nurses and were conducted by non probability convenience sampling technique that was used for selected samples. The sample size related for the study is 100 nursing students for this study structured questionnaire was adopted to collect the data. The data was obtained from IIIrd year B.Sc.(N) students. Finally data was analysed using descriptive and inferential analysis.

Conclusion: The findings of study concluded that majority of 36(36%) nursing students had B grade knowledge on abdominal examination. Researchers suggested that, nursing students need to have adequate knowledge regarding documentation in clinical care among nursing students by conducting

continuing nursing education. There was a non significant association between the level of knowledge on abdominal examination III year BSC nursing students with their selected socio demographic variables such as age in years, source of information and religion.

Reference:

1. Adrian Reubenl; Clin Liver Dis (Hoboken). 2016 Jun; 7(6): 143 - 150. Published online 2016Jun 28. Doi: 10.1002/cld.556PMCID: PMC6490278.
2. Shian B.; Abdominal Wall Pain: Clinical Evaluation, Differential Diagnosis, and Treatment. Am Fam Physician. 2018 Oct 1;98(7):429-436. PMID: 30252418.
3. Koop H; Chronic Abdominal Wall Pain. Dtsch Arztebl Int. 2016 Jan 29;113(4):51-7. doi: 10.3238/arztebl.2016.0051. PMID: 2688341.
4. Charles M.; Inspection, Auscultation, Palpation, and Percussion of the Abdomen. In: Walker HK, Hall WD, Hurst JW, editors. 3rd edition. Boston, 1990. Chapter 93. Butterworth Publishers, a division of Reed Publishing.
5. Fink HA; The accuracy of physical examination to detect abdominal aortic aneurysm. Arch Intern Med. 2000 Mar 27;160(6):833-6. Doi: 10.1001/archinte.160.6.833. PMID: 10737283.
6. Azita Jaber; Effectiveness of Standardized Patient in Abdominal Physical Examination Education: Clin Med Res. 2019 Jun; 17(1-2): 1–10.
7. Rastogi V, Singh D, Tekiner H, Ye F, Mazza JJ, Yale SH. Abdominal Physical Signs of Inspection and Medical Eponyms. Clin Med Res. 2019 Dec;17(3-4):115-126. Doi: 10.3121/cmr.2019.1420. Epub 2019 Jul 15. PMID: 31308022.
8. Burggraf M.; Willingness of medical students to be examined in a physical examination course. BMC Med Educ. 2018 Oct 29;18(1):246. Doi: 10.1186/s12909-018-1353-5. PMID: 30373579.
9. Luther A; The Impact of Total Body Rehabilitation on Post Operative Outcomes After Major Abdominal Surgery: A Systematic Review. World J Surg. 2018 Sep;42(9):2781-2791.