"A Study To Assess The Level of Knowledge on Airway Positioning Among III Year B.Sc (N) Students In Narayana College of Nursing, Nellore, A.P."

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Abstract: "A Study to Assess the Level of Knowledge on Airway Positioning among III Year B.Sc (N) Students in Narayana College of Nursing, Nellore, A. P". **Introduction:** Airway positioning is extremely important during airway management in patients with airway distress, however, it may occasionally be necessary or helpful to incorporate more advanced airway techniques. Airway position has be recommending as optimal one for patient intubation and airway management. The positions which are used for the management of airways include the sniffing. The review focuses on particularly challenging situations in which the choice of one position over another may be critical for maintaining adequate oxygenation while managing the airway. **Objectives: 1.** To assess the level of knowledge on airway positioning. **2.** To find out association between level of knowledge regarding airway positioning with their selected socio demographic variables. **Methodology:** A Non experimental descriptive approach, III year B.Sc (N) Students at Narayana college of nursing Nellore, 100 samples selected with a Non probability convenience sampling technique and the 25 structured questionnaire were used to determine the knowledge on airway positioning among III year B.Sc (N) Students. **Result:** The result shows that with regard 1(1%) acquired A+ grade 5(5%) acquired A grade, 7(7%) Acquired B+, 16(16%) Acquired B, 32(32%) Acquired C, 39(39%) acquired D grade. There is significant association between the level of knowledge on airway positioning and CNE Programme participation. There is non-significant association between the level of knowledge on airway positioning and socio demographic variables such as age, religion, source of information.

Introduction: Airway positioning is extremely important during airway management in patients with airway distress, however, it may occasionally be necessary or helpful to incorporate more advanced airway techniques. Airway position has be recommending as optimal one for patient intubation and airway management.

The positions which are used for the management of airways include the sniffing position which is a commonly used position, ramped or head elevated position which mainly focuses on the elevation of the upper body, head, and neck. In beach chair position patients are at varying angles from 30-90 degrees above the horizontal plane with

appropriate padding and the head is secured in the headrest. The sitting position is the resting position in which body weight is supported primarily by the buttocks.

The review focuses on particularly challenging situations in which the choice of one position over another may be critical for maintaining adequate oxygenation while managing the airway.

These positions help to prevent airway collapse in patients who are obese or have obstructive sleep apnea or in the presence of anterior extrinsic airway obstructions. The main advantage of the sniffing position is the optimal exposure of the glottis for intubation with a Macintosh blade.

The patient's position of comfort is often the position of greatest contracture risk. Attention to correct positioning is relevant to every treatment setting. Positioning is a technique that maximizes a patient's comfort and dignity, and which minimizes injury to tissues.

The nurses should have some knowledge regarding airway positioning and lack of knowledge may lead to prolonged hospitalization, airway obstructions, infection, complications, and even death also. Nursing students also gain some knowledge regarding airway positioning and how it works for a patient with airway distress.

Need For Study:

WHO launched the Global alliance against respiratory diseases with the aim to bring together the combined knowledge on national, international organizations and institutions to improve the lives more than one million people affected acute or chronic respiratory diseases.

If we take worldwide statistics related to airway disorders about 334 million people suffer from asthma 14% globally, 10 million people suffer from pneumonia, 5 million people suffer from COPD. More than 100 million people suffer from occupational lung diseases.

In India the people suffering from respiratory problems are increasing. In 2018 statistics, the number of cases of COPD, asthma has increased from 28.1 million to 50 million.

In Andhra Pradesh in 2017 statistics the patients who are suffering from respiratory problems are about 1-20 of 1200 peoples. Mainly if we take 480 patients, most of them are males. This is due to their lifestyle modifications, habits etc.

In Nellore a study was conducted to study the relevance of airway positioning in the management of airway. They have selected a sample size of 50 patients in ACSR medical college Nellore. After the study they concluded that proper positioning is very important in airway management.

Statement of the Problem:

A study to assess the level of knowledge on airway positioning among III year B.Sc (N) students in Narayana College of Nursing, Nellore, A.P."

Objectives:

1. To assess the level of knowledge regarding airway positioning among the III year B.Sc (N) students
2. To associate the level of knowledge on airway positioning among III year B.Sc (N) students with their socio demographic variables

Operational Definition:

Assess: Refers to determining the importance of airway positioning.

Level: A measurement of the difference of attitude of two points

Knowledge: Information gained through education.

Airway positioning:

Refers to the positions which are provided to improve respiratory functions.

Nursing students:

A person who is studying in III year B.Sc (N) students in Narayana College of Nursing.

Assumptions:

The students may not have adequate knowledge regarding airway positioning.

Settings of the study:

The study was conducted at 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 of students is approximately 200 students. The college offers world class infrastructure unparalleled technical expertise with diligent faculty. The programmes included are B.Sc nursing, General nursing, Post B.Sc Nursing, M.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 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 fulfills the inclusion criteria.

Sampling size:

The sample size for the present study were about 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

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

Exclusion Criteria:

The nursing students

1. Who are on leave
2. Who are not available at the time of data collection

2 Who are not willing to participate in the study

Variables: Variables of the study are research variables and socio demographic variables.

Research Variables: The knowledge of III year B.Sc (N) students on airway positioning.

Demographic Variables:

The socio demographic variables such as age, religion, source of information, previous knowledge on airway positioning.

Description of the tool:

The tool was developed with the help of extensive review from various text books, journals and internet sources. The tool was developed to assess knowledge on airway positioning among III rd year B.Sc.(N) students at Narayana College of Nursing, Nellore. The tool consists of two parts.

Part - I: Deals with demographic variables such as age, religion, source of information, previous knowledge on airway positioning.

Part - II:

It consist of 25 structured questionnaire to assess the knowledge on airway positioning among III year B.Sc nursing students.

Score Interpretation:

Each correct answers, scored as "1" and wrong answers scored as "0" total score was 25. It is to assess the knowledge regarding airway positioning among III rd year B.Sc(N) students.

The obtained score was assigned grades as follows:

Grade	Percentage	Score
A+	91-100%	23-25
A	81-90%	21-22
B+	71-80%	18-20
B	61-70%	16-17
C	51-60%	13-15
D	<50%	<12

Data Collection Procedure:

The data collection procedure was for a period of 2 weeks. After obtaining the permission from nursing dean data collection has get started. 100 samples were selected 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 is assured. Structured questionnaire is adopted to collect the data; questionnaire was given to III year B.Sc Nursing students and was given 30 minutes to complete the questionnaire. Each day 5 samples was selected between 9am to 12pm. Data was organized and presented into tables and figures.

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

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

Frequency and percentage distribution based on their level of knowledge regarding airway positioning among III year B.Sc (N) students.

Table - 1: Frequency and Percentage distribution based on their level of knowledge regarding airway positioning among III year B.Sc.(N) students.

(N=100)

Category	Frequency	Percentage
A+	1	1
A	5	5
B+	7	7
B	16	16
C	32	32
D	39	39
Total	**100**	**100**

Table - 1: Discusses the level of knowledge regarding airway positioning among III year B.Sc.(N) students 1(1%) had A+ grade, 5(5%) had A grade, 7(7%) had B+, 16(16%) had B grade, 32(32%) had C, 39(39%) had D grade knowledge.

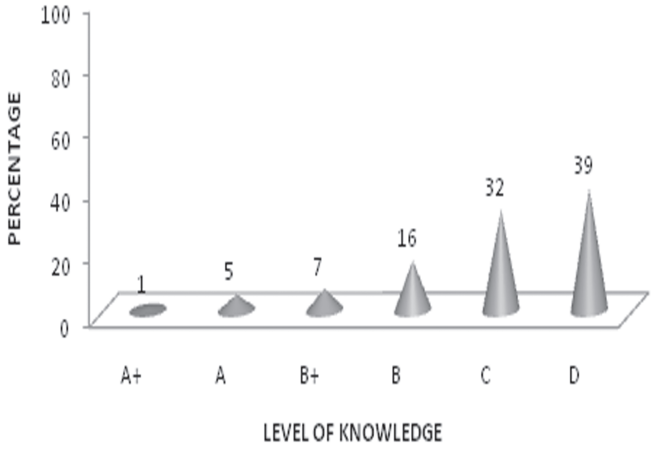

Fig.No.1: Percentage distribution based on their level of knowledge regarding airway positioning among III year B.Sc.(N) students

Table No - 2 : Mean and Standard Deviation of level of knowledge regarding airway positioning among III year B.Sc.(N) students

Category	Mean	SD
Knowledge regarding airway positioning among III rd year B.Sc.(N) students	13.69	3.65
Total	100	100

Table No: 2 Encloses the level of knowledge regarding airway positioning among III year B.Sc.(N) students, that mean value was 13.69 with standard deviation of 3.65.

Table-3: Association Between Level of Knowledge on Airway Positioning among III Year B.Sc(N) Students With Their Selected Socio Demographic Variables

Demographic Variables	A+		A		B+		B		C		D		Chi-Square
	F	%	F	%	F	%	F	%	F	%	F	%	
Age													P=0.05
19-20 years	0	0	2	2	3	3	4	4	10	10	14	14	CV=12.13
20-21 years	1	1	3	3	3	3	10	10	12	12	22	22	TV=18.36
21-22 years	0	0	0	0	1	1	2	2	10	10	3	3	Df=10;NS
													P=0.05
Religion													
Hindu	1	1	3	3	4	4	9	9	22	22	17	17	CV=5.28
Christian	0	0	2	2	3	3	7	7	10	10	22	22	TV=11.07
													Df=5; NS
													P=0.05
Source of Information													
Books	0	0	1	1	2	2	4	4	10	10	11	11	CV=11.07
Internet	1	1	3	3	3	3	10	10	10	10	14	14	TV=24.99
Health Personnel's	0	0	1	1	1	1	2	2	3	3	9	9	Df=15; NS
Mass Media	0	0	1	1	2	2	2	2	2	2	9	9	
Attending any CNE programme													
Yes	0	0	2	2	3	3	7	7	1	1	1	1	CV=26.9
No	1	1	3	3	4	4	9	9	31	31	38	38	TV=11.07
													Df=5
													p=0.05 S

Note:

NS = Non Significant
S = Significant
TV = Table Value
Df = Degree of Freedom
CV = Calculated Value
Df = (r-1)(c-1)
P<0.05 = level of significant
chi-square value = tabulated value

Discussion:

- With regard to age , 33(33%) were between 19-20 yrs of age, 51(51%) were between 20-21 yrs of age and 16(16%) were between 22-23yrs of age.
- In context to religion of students Hindu 56(56%), Christian 44(44%)
- In associated to source of information among students getting information through books 28(28%), internet 41(41%), health personnel's 26(26%), mass media 5(5%).

➢ If we collect the information regarding students who has attended CNE programme on airway positioning 14(14%) belongs to 'yes' category while 86(86%) belongs to 'no' category.

Conclusion: The study concluded that most of the III year B.Sc Nursing students having average knowledge regarding airway positioning. There is need to improve the knowledge regarding airway positioning. There is need of conducting awareness programmes and screening programmes regarding airway positioning. There is significant association between level of knowledge and CNE programme participation.

There is non significant association between level of knowledge and socio demographic variables such as age, religion, source of information.

Nursing Implications: The findings of the study have several implications, nursing practice, nursing education, nursing administration and nursing research.

NURSING RECOMMENDATIONS FOR FUTURE RESEARCH

On the basis of the findings the study recommendation are suggested in the future research .

➢ A study can be replicated to a large number of sample

➢ A similar study can be done in different settings and in differential population

➢ A cross sectional descriptive study can be done to assess the knowledge regarding airway positioning among III year BSc nursing Students.

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