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## A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE REGARDING GLASGOW COMA SCALE AMONG DIPLOMA NURSING STUDENTS IN SELECTED SCHOOL OF NURSING, LOKHRA, GUWAHATI, ASSAM

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### ABSTRACT:

**Background of the Study:** Teasdale and Jennet created the Glasgow Coma Scale in 1974. For all medical and trauma patients, it is the standard of care. Observing spontaneous behaviors and using stimuli yields the score. As a result, it is the most accurate and sensitive indicator for all neurological patients. **Objectives:** To assess the knowledge on Glasgow Coma Scale among Diploma Nursing Students in selected School of Nursing, Lokhra, Guwahati, Assam **Methodology:** A descriptive study was carried out to evaluate diploma nursing students' understanding of the Glasgow Coma Scale. For the study, a non-probability convenient sampling strategy (N=100) was chosen. Using a self-structured questionnaire, the study was carried out at the NEF Institute of Nursing at Lokhra, Saukuchi, and Guwahati 40. Descriptive and inferential statistics were used to analyze the collected data. **Result :** According to the study's findings, 52% of students had sufficient understanding of the Glasgow Coma Scale, 40% had moderate knowledge, and 8% had insufficient information. The pre-test's mean knowledge score is 16.11, with a 4.64 standard deviation. Additionally, the results show a strong correlation between knowledge and the demographic variables of age, source of information, previous knowledge. **Conclusion:** The study confirms that most of the students had adequate knowledge on Glasgow Coma Scale. We had found a significant association between knowledge with demographic variable that is age, previous knowledge, and source of information.

**KEYWORDS:** Diploma Nursing Students, Glasgow Coma Scale, Knowledge.



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## INTRODUCTION:

Teasdale and Jennet created the Glasgow Coma Scale in 1974. For all medical and trauma patients, it is the standard of care. Observing spontaneous behaviors and using stimuli yields the score. As a result, it is the most accurate and sensitive indicator for all neurological patients. This enables the scoring system to determine the optimal course of action for various patient types. It's critical to document the GCS score in order to track and share changes in a patient's condition. This study mainly focused to assess the knowledge on Glasgow Coma Scale among Diploma Nursing Students in selected School of Nursing, Guwahati. The latest global status report from WHO indicates that more than 40% of the global population is affected by neurological disorders. Since nursing students are engaged in clinical practice, it is essential for them to possess a strong understanding of these conditions so they can apply their knowledge effectively. Consequently, the research focused on the students' understanding of the Glasgow Coma Scale (GCS).

## Objectives of the study :

1. To assess the knowledge on Glasgow Coma Scale among Diploma Nursing Students in selected School of Nursing, Lokhra,, Guwahati, Assam
2. To find out the association between knowledge and demographic variable on Glasgow Coma Scale.

## REVIEW OF LITERATURE:

**1) Nazia kanwal et.al (2021):** With a sample size of 150, a descriptive cross-sectional research study was carried out to evaluate GCS knowledge and practice among ICU nurses. An adapted modified self-administered questionnaire was used to assess nurses' knowledge, and a checklist was used to observe their practices. Nonetheless, the findings indicated that 86.7% of nurses possess sufficient information about GCS.

**2)Mayavati tupere et.al (2023):** descriptive study with a sample size of forty was carried out among the staff nurses in the critical care unit. The study collected data using a self-structured questionnaire and selected samples using a straightforward random sampling procedure. The findings show that 35% of staff nurses had inadequate knowledge of GCS and 65% of staff nurses had high knowledge.

**3) Habtamu Andualem et.al (2022):** 123 nurses employed by the four federal hospitals in Addis Ababa, the capital of Ethiopia, participated in a cross-sectional survey. Data was gathered using a self-structured tool. The majority of nurses (51.2%) had inadequate GCS understanding, and 62% had poor GCS practice.



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## RESEARCH METHODOLOGY:

**Research Approach** : Quantitative Research Approach

**Research Design** : Descriptive Research Design

### Variables :

**Research Variable** : “knowledge”

**Demographic Variables:** age, religion, educational status, type of family, previous knowledge, source of information.

**Setting of the study:** NEF Institute of Nursing Sciences, Saukuchi, Lokhra, Guwahati-40

**Population** : Diploma Nursing Students

**Target Population** : Diploma Nursing Students in selected school of nursing, Lokhra, Guwahati, Assam

**Accessible Population** : Diploma nursing students studying in NEF Institute of Nursing, Lokhra, Guwahati, Assam.

### Sample and sampling technique:

**Sample:** Diploma nursing students studying in NEF Institute of Nursing, Lokhra , Guwahati, Assam

**Sample Size:** 100

**Sampling technique** : Non probability convenient sampling technique

### Criteria for selection of sample :

#### Inclusion Criteria :

- Students pursuing a diploma in nursing who agreed to take part
- Students who were present when the data was being collected.

#### Exclusion Criteria:

- Students of GNM 1<sup>st</sup> year
- Students who were unavailable when the data was being collected.





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### Tools and techniques:

**Tool:** Data was gathered using a self-structured questionnaire.

**Technique:** Self- report

### Categorization of Knowledge Score:

- Inadequate Knowledge : 0-8
- Moderate Knowledge : 9-16
- Adequate Knowledge : 17-25

**Validity of Tool:** The tool along with the problem statement and the objective was submitted to three expert; Department of Medical Surgical Nursing. The experts were asked to provide their thoughts on the content's appropriateness and correctness.

### Ethical Consideration:

1. The principal of the NEF Institute of Nursing, located in Lokhra, Saukuchi, Guwahati-40, provided written consent.
2. Verbal and written consent has derived from the research sample
3. The confidentiality of the collected data was guaranteed to the subjects.

### RESULTS:

**Table-A: FREQUENCY AND PERCENTAGE DISTRIBUTION OF DIPLOMA NURSING STUDENTS ACCORDING TO DEMOGRAPHIC VARIABLE-**

Sl.No	Demographic Variables	Frequency	Percentage
<b>1</b>	<b>Age-</b>		
	a) 19-20 years	26	26%
	b) 21-22 years	33	33%
	c) 23-24 years	22	22%



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	d) 25 years & above	18	18%
2	<b>Religion-</b>		
	a) Hinduism	29	29%
	b) Islam	57	57%
	c) Christian	14	14%
	d) Others	0	0%
3	<b>Educational Status-</b>		
	a)GNM 2 <sup>nd</sup> year	50	50%
	b)GNM 3 <sup>rd</sup> year	50	50%
4	<b>Type Of Family-</b>		
	a) Joint	28	28%
	b) Nuclear	72	72%
	c) Blended	0	0%
	d) Extended	0	0%
5	<b>Previous knowledge:</b>		
	a) No	29	29%
	b) Yes. if yes, specify the source	71	71%
6	<b>Source of Information-</b>		
	a) Mass media	04	4%
	b) Relatives / Family	05	5%
	c) Educational Organization	62	62%
	d) Peer Group	0	0%

**TABLE-B: FREQUENCY AND PERCENTAGE DISTRIBUTION OF KNOWLEDGE SCORE REGARDING GLASSGOW COMA SCALE-**

Knowledge level	Frequency	Percentage (%)	Mean	Standard deviation	Minimum score	Maximum score
Inadequate	8	8%				



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Moderate	40	40%	16.11	4.64	7	23
Adequate	52	52%				

**TABLE-C: ASSOCIATION BETWEEN KNOWLEDGE AND DEMOGRAPHIC VARIABLE ON GLASSGOW COMA SCALE.**

Demographic Variables	Inadequate		Moderate		Adequate		Chi square Test , d.f and P- value
	No	%	No	%	No	%	
Age :							
19-20 years	06	6%	12	12%	08	8%	X2=20.86 d.f=6 p=12.59 **S
21-22 years	08	8%	15	15%	10	10%	
23-24 years	03	3%	06	6%	14	14%	
25 years & above	02	2%	11	11%	05	5%	
Religion :							
Hinduism	07	7%	10	10%	12	12%	X2=1.5 d.f=6 p=12.59 **N.S
Islam	09	9%	17	17%	31	31%	
Christian	03	3%	04	4%	07	7%	
Others	00	0%	0	0%	0	0%	
Educational Status :							
GNM 2 <sup>nd</sup> year	07	7%	24	24%	19	19%	X2=3.32 d.f=2 p=5.99 **NS
GNM 3 <sup>rd</sup> year	05	5%	33	33%	12	12%	
Type of Family :							
Joint	05	5%	10	10%	13	13%	X2=1.33 d.f=3 p= 7.82
Nuclear	12	12%	18	18%	42	42%	
Blended	0	0%	0	0%	0	0%	



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Extended	0	0%	0	0%	0	0%	**N.S
<b>Previous knowledge :</b>							
No	10	10%	13	13%	06	6%	X2=6.51
Yes. If yes, specify the source	11	11%	29	29%	31	31%	d.f=2 p=5.99 **S
<b>Source of Information :</b>							
Mass media	03	3%	05	5%	07	7%	X2=12.73
Relatives/ family	03	3%	09	9%	04	4%	d.f=6 p=12.59
Educational Organization	02	2%	11	11%	09	9%	**S
Peer Group	02	2%	09	9%	07	9%	

### Discussion:

The goal of the study was to evaluate diploma nursing students' knowledge of GCS at a particular school of nursing in Lokhra, Guwahati, Assam, and to determine the relationship between knowledge and demographic factors.

Several professionals were asked to respond to the questionnaire with their thoughts and recommendations. Both descriptive and inferential statistics were used to analyze the collected data

### Conclusion:

The knowledge regarding GCS out of 100 Diploma Nursing students in the study reveals that most of the students i.e. 52 (52%) had adequate knowledge and 40(40%) had moderate and 8 (8%) had inadequate knowledge regarding GCS among Diploma Nursing students. In the study , the mean knowledge value is 16.11 with the standard deviation 4.64. The result also reveals that Knowledge and a demographic characteristic are significantly correlated that is age, previous knowledge, and source of information.



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