



International Journal of Advance Research in Community Health Nursing

E-ISSN: 2664-1666

P-ISSN: 2664-1658

www.communitynursing.net

IJARCHN 2025; 7(1): 80-83

Received: 09-12-2024

Accepted: 14-01-2025

Linu Rani Jolly

B.Sc., IV Year, Chettinad College of Nursing, Chettinad Academy of Research and Education, Chettinad Hospital and Research Institute, Kelambakkam, Tamil Nadu, India

Akshaya S

B.Sc IV Year, Chettinad College of Nursing, Chettinad Academy of Research and Education, Chettinad Hospital and Research Institute, Kelambakkam, Tamil Nadu, India

Benson George Bose

B.Sc IV Year, Chettinad College of Nursing, Chettinad Academy of Research and Education, Chettinad Hospital and Research Institute, Kelambakkam, Tamil Nadu, India

Sepsin Rigas X

B.Sc IV Year, Chettinad College of Nursing, Chettinad Academy of Research and Education, Chettinad Hospital and Research Institute, Kelambakkam, Tamil Nadu, India

Ragul K

B.Sc IV Year, Chettinad College of Nursing, Chettinad Academy of Research and Education, Chettinad Hospital and Research Institute, Kelambakkam, Tamil Nadu, India

Yaga Jeyanthi M

HOD of Community Health Nursing, Chettinad College of Nursing, Chettinad Academy of Research and Education, Chettinad Hospital and Research Institute, Kelambakkam, Tamil Nadu, India

Corresponding Author:

Yaga Jeyanthi M

HOD of Community Health Nursing, Chettinad College of Nursing, Chettinad Academy of Research and Education, Chettinad Hospital and Research Institute, Kelambakkam, Tamil Nadu, India

A study to assess the knowledge on Guillain barre syndrome among nurses at selected hospital in Chennai

Linu Rani Jolly, Akshaya S, Benson George Bose, Sepsin Rigas X, Ragul K and Yaga Jeyanthi M

DOI: <https://www.doi.org/10.33545/26641658.2025.v7.i1b.222>

Abstract

To assess the level of knowledge on Guillain-Barré Syndrome (GBS) among nurses and its association with selected demographic variables. This quantitative cross-sectional study was conducted at Chettinad Hospital, Chengalpattu, Tamil Nadu. A total of 100 staff nurses were selected using non-probability purposive sampling. Data was collected through a self-structured questionnaire and analyzed using descriptive and inferential statistics. The study found that 74% had inadequate knowledge, 21% had moderate knowledge, and only 5% had adequate knowledge. Knowledge of GBS was significantly associated with demographic variables such as area of work, familiarity through friends and relatives, and years of experience. The results indicate that most nurses have inadequate knowledge about GBS.

Keywords: Knowledge, nurse, inferential statistics, GBS- Guillain barre syndrome

Introduction

Guillain-Barré Syndrome (GBS) is a rare but potentially life-threatening neurological disorder characterized by the sudden onset of muscle weakness, often progressing to paralysis, and, in severe cases, respiratory failure. Although the exact cause of GBS is not fully understood, it is widely recognized as an autoimmune condition often triggered by prior infections, such as respiratory or gastrointestinal illnesses, in individuals with a genetic predisposition. The clinical presentation of GBS can vary significantly, from mild muscle weakness to severe paralysis, necessitating prompt diagnosis and intervention to reduce complications and improve outcomes.

In the dynamic healthcare environment of Chennai, India, where rapid medical advancements coexist with a diverse patient population and varied healthcare infrastructure, managing GBS presents a distinct challenge. Nurses, as essential members of the healthcare team, bear the primary responsibility for providing comprehensive care to patients. This includes assessing, monitoring, and implementing treatment regimens. However, the effectiveness of nursing care in managing GBS heavily depends on the nurses' depth of knowledge and understanding of the condition and its complexities.

Despite the pivotal role nurses play, there is a notable lack of research investigating their knowledge and preparedness in caring for patients with Guillain-Barré Syndrome (GBS) in Chennai's healthcare settings. Given the critical importance of informed nursing care in optimizing patient outcomes and minimizing complications associated with GBS, it is imperative to assess the level of knowledge among nurses practicing in hospitals across Chennai.

This study acknowledges the crucial role nurses play in delivering comprehensive care to patients with Guillain-Barré Syndrome (GBS). Despite the recognized importance of nursing care in managing GBS, there is a significant gap in the literature concerning the assessment of nurses' knowledge specifically related to GBS cases within the healthcare setting of Chennai.

Existing research primarily emphasizes clinical aspects, diagnostic criteria, and therapeutic interventions, with limited focus on assessing nurses' understanding of the condition and its

implications. This study aims to address this gap by systematically evaluating the knowledge levels of nurses regarding GBS in selected hospitals in Chennai.

Materials and Methods

The study employed a cross-sectional research design with a quantitative approach to assess staff nurses' knowledge of Guillain-Barré Syndrome (GBS) at Chettinad Hospital, Chennai, Tamil Nadu. A total of 100 nurses were selected using nonprobability purposive sampling. The sample size was determined using the formula $S = Z^2 \times p(1-p)/M^2$, with a 95% confidence level ($Z = 1.96$, $M = 5\%$).

Data collection was conducted over two weeks using a self-structured questionnaire, with each participant taking 15-20 minutes. Confidentiality was assured, and informed consent

was obtained. Ethical approval was granted by the Institutional Human Ethics Committee (Ref No: IHEC-I/2840/24), with permissions from relevant authorities.

The tool consisted of two sections: Section A assessed demographic variables such as age, gender, experience, and prior knowledge of GBS, while Section B contained 25 multiple-choice questions on GBS. Each correct answer carried one mark, with a total possible score of 25. Data was analyzed using descriptive statistics.

Results and Discussions

Section 1: Assessment of demographic variable

Assess the demographic variables of staff nurses in chettinad Hospital in Chennai.

Table 1: Frequency and percentage distribution of samples with Demographic variables N= 100

Characteristics	Category	Frequency	Percentage (%)
Age	20-35 years	59	59
	36-50 years	37	37
	>50 years	4	4
Gender	Male	16	16
	Female	84	84
Education Qualification	Diploma nursing	8	8
	Post basic nursing	26	26
	Bsc nursing	64	64
	Msc nursing	2	2
Year of Experience	1-10 years	38	38
	11-20 years	43	43
	>20 years	19	19
Area of work	OP	16	16
	Ward	63	63
	ICU	15	15
	OT	6	6
Familiar with Gbs	No	89	89
	Yes	11	11
If yes	Relatives	3	3
	Friends	2	2
	Patient care	6	6
Previous Knowledge	No	98	98
	Yes	2	2
If yes	Book	2	2

The above table 1: Shows the characteristics of the surveyed nurses with diverse demographic. The majority are aged between 20-35 years (59.0%), with fewer in the 36-50 years (37.0%) and over 50 years (4.0%) categories. Gender distribution shows a predominance of females (84.0%) compared to males (16.0%). In terms of education, most nurses hold a Bachelor of Science in Nursing (64.0%), followed by post-basic nursing (26.0%) and a small number with diploma (8.0%) or master's degrees (2.0%). Regarding experience, 38.0% have 1-10 years, while 43.0% have 11-20 years of experience, and only 19.0% exceed 20 years. The

primary areas of work are in wards (63.0%), with smaller proportions in outpatient (16.0%), ICU (15.0%), and operating theater (6.0%). Familiarity with GBS is low, with 89.0% of nurses indicating they are not familiar, while only 11.0% report some familiarity, primarily through relatives, friends, or patient care. Additionally, 98.0% have no previous knowledge of GBS, with only 2.0% claiming they do, citing books as their source.

Section 2: Assessment of knowledge on GBS among nurses.

Table 2: Frequency and Percentage distribution of knowledge regarding GBS.

S. No	Level of knowledge	Frequency	Percentage
1	Adequate knowledge	5	5%
2	Moderate knowledge	21	21%
3	Inadequate knowledge	74	74%

Table no 2: the above tables shows that the staff nurses knowledge on GBS, that majority of them having inadequate knowledge 74 (74%); having moderate knowledge 21 (21%) & having adequate knowledge 5 (5%).

Section 3: To find the association of knowledge with selected demographic variables of nurses.

Table 3: Age, Gender, Education qualification, Year of experience, Area of work, Familiar with GBS, If yes (Relatives/Friends/Patient Care), Previous knowledge, If yes (Book/Class) with corresponding values for Inadequate, Mode rate, Adequate, Degree of freedom, Chi-square, p-value, and Significance

Characteristics	Category	Inadequate	Mode rate	Adequate	Degree of freedom	Chi-square	p value	Significance
Age	20-35 years	45	14	0	4	3.663	0.474	Non significant
	36-50 years	28	7	2				
	>50 years	3	1	0				
Gender	Male	14	2	0	2	1.494	0.474	Non-significant
	Female	62	20	2				
Education qualification	Diploma Nursing	7	1	0	6	3.178	0.786	Non-significant
	Post Basic Nursing	17	8	1				
	B.Sc., Nursing	50	13	1				
	M.Sc., Nursing	2	0	0				
Year of experience	1-10 yrs	20	14	4	4	15.2	0.004	Significant
	11-20 yrs	38	4	1				
	>20 yrs	2	0	0				
Area of work	OP	16	3	0	6	4.847	0.564	Non-significant
	Ward	44	17	2				
	ICU	12	3	0				
	OT	5	1	0				
Familiar with GBS	No	64	20	5	2	12.20	0.002	Significant
	Yes	4	3	4				
If yes	Relatives	1	0	2	6	22.76	0.001	Significant
	Friends	2	0	0				
	Patient Care	1	1	2				
Previous knowledge	No	72	22	2	2	0.644	0.725	Non-significant
	Yes	2	0	0				
If yes	Book	1	0	0	4	0.644	0.958	Non-significant
	Class	1	0	0				

The Table no: 1.3: the above table shows that the was significant association between knowledge and some demographic variables such as Year of experience ($X^2=15.28$), Familiar with GBS ($X^2=12.20$), If Yes through their friends & relatives ($X^2=22.76$). There was no significant association between knowledge and the demographic variables such as Age ($X^2=3.663$), Gender ($X^2=1.494$), Education Qualification ($X^2=3.178$), Area of work ($X^2=4.847$), Previous Knowledge $X^2=0.644$), If Yes $X^2=0.644$).

Discussion

Distribution of demographic variables of knowledge and among Nurses regarding GBS

Shows the characteristics of the surveyed nurses with diverse demographic. The majority are aged between 20-35 years (59.0%), with fewer in the 36-50 years (37.0%) and over 50 years (4.0%) categories. Gender distribution shows a predominance of females (84.0%) compared to males (16.0%). In terms of education, most nurses hold a Bachelor of Science in Nursing (64.0%), followed by post-basic nursing (26.0%) and a small number with diploma (8.0%) or master's degrees (2.0%). Regarding experience, 38.0% have 1-10 years, while 43.0% have 11-20 years of experience, and only 19.0% exceed 20 years. The primary areas of work are in wards (63.0%), with smaller proportions in outpatient (16.0%), ICU (15.0%), and operating theater (6.0%). Familiarity with GBS is low, with 89.0% of nurses indicating they are not familiar, while only 11.0% report some familiarity, primarily through relatives, friends, or patient care. Additionally, 98.0% have no previous knowledge of GBS, with only 2.0% claiming they do, citing books as their source.

Frequency and Percentage distribution of knowledge regarding GBS

Assessment of knowledge levels among the surveyed nurses reveals that a significant majority, 74%, possess inadequate knowledge. A smaller portion, 21%, has moderate knowledge, while only 5% demonstrate adequate knowledge. This distribution indicates a clear need for improved educational initiatives to enhance understanding and awareness in the relevant area, as the vast majority of nurses lack sufficient knowledge. Overall, the findings underscore the importance of targeted training and resources to address these gaps.

Association between knowledge and demographic variable

There was significant association between knowledge and some demographic variables such as Year of experience ($X^2=15.28$), Familiar with GBS ($X^2=12.20$), If Yes ($X^2=22.76$). There was no significant association between knowledge and the demographic variables such as Age ($X^2=3.663$), Gender ($X^2=1.494$), Education Qualification ($X^2=3.178$), Area of work ($X^2=4.847$), Previous Knowledge $X^2=0.644$), If Yes $X^2=0.644$).

Conclusion

This chapter discussed the findings of the study derived from statistical analysis and its prevalence to the objectives set for the study and related literature of the study. The study findings reveals the frequency and percentage distribution of demographic variables among and level of knowledge regarding GBS among nurses at Chettinad Hospital.

The data highlights a young nurses with good educational qualifications but limited experience overall. Most participants are unfamiliar with GBS and lack prior knowledge or exposure, suggesting a strong need for awareness programs or targeted education in healthcare settings. The ward is the most common area of work, which may influence the nature of training or interventions required.

Acknowledgement

First we are grateful to Godhead for his Grace and Blessing through this endeavor.

We wish to express our sincere appreciation and deep sense of gratitude to the principal Prof. Dr. Hepsibah Sharmil, Principal, Chettinad College of Nursing, for her elegant direction and suggestions given for this study. We also express our deepest and sincere thanks to Prof. Dr. Subbulakshmi, Vice Principal, Chettinad College of Nursing, for her guidance and valuable suggestion to conduct this study.

We also extend our deepest and sincere thanks to Mrs. Manjula T.R M.Sc(N) Assistant Professor, Mental health Nursing Department, Chettinad College of Nursing, for her guidance, who has guided us with high intention, intelligent direction and skillful execution which led to a successful path in completing our dissertation. Her valuable suggestion and continuous support, which made this study fruitful.

We also express our sincere gratitude to Research Coordinator Prof. Yagajeyanthi, HOD of Community health nursing Department, for her guidance with reference to research protocols.

We acknowledge the support received from the Librarians of Chettinad college of Nursing, CARE in availing the library facility. We also accord respect and gratitude to all or any the teaching and non-teaching members of Chettinad College of nursing for his or her co-operation and support throughout the study. Our heartfelt gratitude and sincere thanks to the eligible couples who were our study samples, without them this study certainly would have not been possible. A special thanks to the family members, who simplify thought nothing, was impossible and who were always so pleased by our accomplishments no matter how large or small they are.

Financial support and sponsorship

Nil.

Conflict of interest

There are no conflicts of interest.

References

1. Willison HJ, Jacobs BC, van Doorn PA. Guillain-Barré syndrome. *The Lancet* [Internet]. 2016;388(10045):717-727. Available from: [http://dx.doi.org/10.1016/s0140-6736\(16\)00339-1](http://dx.doi.org/10.1016/s0140-6736(16)00339-1)
2. Kudhaer W, Mua'ala E. Assessment of nurses' knowledge toward children with Guillain-Barré syndrome at pediatric hospitals in Baghdad city. *Iraqi National Journal of Nursing Specialties* [Internet]. 2018;23(2):66-75. Available from: <http://dx.doi.org/10.58897/injns.v23i2.83>
3. Wijdicks EFM, Klein CJ. Guillain-Barré syndrome. *Mayo Clinic Proceedings* [Internet]. 2017;92(3):467-479. Available from:

4. Kogos SC Jr, Richards JS, Baños J, Schmitt MM, Brunner RC, Meythaler JM, *et al.* A descriptive study of pain and quality of life following Guillain-Barré syndrome: One year later. *Journal of Clinical Psychology in Medical Settings* [Internet]. 2005;12(2):111-116. Available from: <http://dx.doi.org/10.1007/s10880-0053271-z>
5. Foster E. A descriptive study of patients with Guillain-Barré syndrome. *Australasian Medical Journal* [Internet]. 2016, 9(8). Available from: <http://dx.doi.org/10.4066/amj.2016.2703>

How to Cite This Article

Kale AA, Murkute D, Pangare G. A study to assess the knowledge on Guillain barre syndrome among nurses at selected hospital in Chennai. *International Journal of Advance Research in Community Health Nursing*. 2025; 7(1): 80-83.

Creative Commons (CC) License

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0) License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.