



# Assessing the Knowledge and Skills Regarding Partograph Among Nursing Students

Blessy Little Christy P

[blessylittlechristy@gmail.com](mailto:blessylittlechristy@gmail.com)

VHS- MA Chidambaram College and School of Nursing, Chennai, Tamil Nadu

## ABSTRACT

*The partograph is a critical tool for monitoring labor progress and ensuring maternal and fetal well-being. However, nursing students often face challenges in effectively understanding and utilizing it, influencing labor management outcomes. This cross-sectional descriptive study assessed the knowledge and skill levels regarding partograph use among 125 final-year DGNM and BSc Nursing students in a Chennai college. Data collection involved a 35-item questionnaire for knowledge and case-based scenarios for skill evaluation. Results showed that 66% of students had inadequate knowledge, 33% had moderately adequate knowledge, and only 1% demonstrated sufficient knowledge. Similarly, 67% had inadequate skills, 23% had moderately adequate skills, and 10% demonstrated adequate skills. Significant associations were found between knowledge and skills with demographic variables such as age and educational qualifications ( $p < 0.05$ ), while no significant associations were observed for other variables like religion and participation in in-service education programs. The findings highlight the need for simulation-based training and increased clinical exposure to enhance nursing students' competency in partograph use.*

**Keywords:** Partograph, Nursing students, Knowledge, Skill

## 1. INTRODUCTION

The partograph is a vital tool designed by the World Health Organization (WHO) to monitor labor progress and maternal and fetal wellbeing. It aids in early detection of complications, allowing timely interventions to reduce maternal and neonatal morbidity and mortality. For nursing students, competency in using the partograph is essential for delivering quality care in maternity wards. However, they often face several challenges in mastering this skill, which can be broadly categorized into education as insufficient training, poor instructor-to-student ratio, over-reliance on theory, systemic as time constraints, inconsistent practices and practical issues as lack of real-life experience, stress and anxiety, interpreting clinical data, communication barriers. Despite its significance, there is evidence that gaps exist in both knowledge and practical application among nursing students. This study aims to assess the level of understanding and skill in using the partograph, identifying areas requiring targeted educational interventions to enhance clinical competency.

## 2. PROBLEM STATEMENT

A study to assess the knowledge and skill regarding partograph among nursing students at selected college, Chennai.

## 3. OBJECTIVES

To assess the knowledge and skill on partograph among the nursing students.

To find the association between level of knowledge and skill on partograph among nursing students with demographic variables.

## 4. HYPOTHESIS

**H<sub>01</sub>:** There is no significant association between knowledge and skill on partograph among nursing students with demographic variables.

**H<sub>02</sub>:** There is significant association between knowledge and skill on partograph among nursing students with demographic variables.

## 5. METHODS AND METHODOLOGY

### a. Study design

A study aimed to assess the nursing students' knowledge and skills regarding the partograph. The research employed an evaluative approach, quantitative non-experimental descriptive research design.

**b. Study population**

The study involved a total of 125 final-year students from DGNM and BSc Nursing programs was conducted among nursing students at a selected college in Chennai and were chosen as participants through a non-probability convenience sampling method to ensure representativeness.

**Data Collection Tools**

**Structured Questionnaire:** Data collection involved a structured questionnaire to gather demographic information and assess knowledge. The knowledge assessment was comprised of 35 multiple-choice questions, to assess theoretical knowledge of partograph components such as labor progress, fetal monitoring, and maternal conditions with each correct answer awarded one mark, yielding a maximum possible score of 35. Knowledge levels were categorized as inadequate (0–50%), moderately adequate (51–75%), and adequate (76–100%).

**Practical Simulation:** A case-based skill assessment, a partograph was used as the evaluation tool. Students were provided with a scenario and instructed to plot data on a partograph. The tool included 14 parameters, with a total score of 45. Skill levels were similarly classified into inadequate (0–50%), moderately adequate (51–75%), and adequate (76–100%).

**Data Analysis**

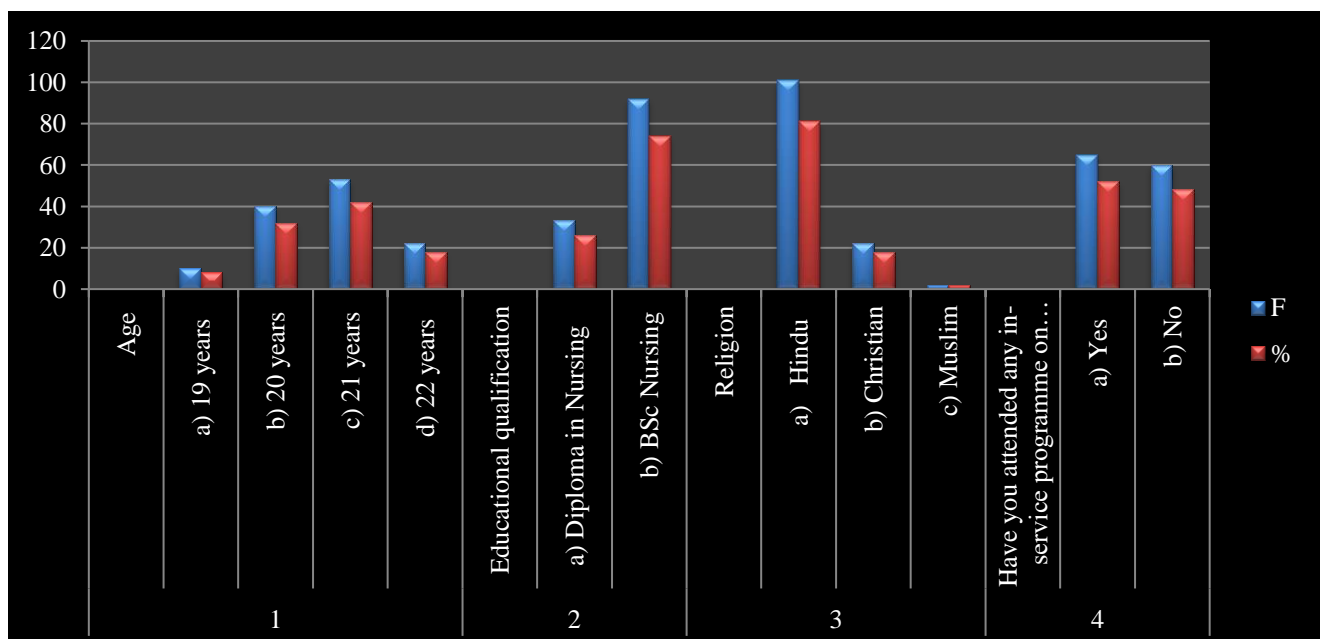
The collected data were analyzed using descriptive and inferential statistical methods via SPSS software. Descriptive statistics (percentages) summarized the knowledge and skill levels. Inferential statistics (Chi-square) identified associations between knowledge levels, skills, and demographic factors.

**6. RESULT AND DISCUSSION**

*Table 1: Demographic variables*

*The majority of participants (42%) were 21 years old, 74% were B.Sc. Nursing students, 81% identified as Hindus, and 52% had previously attended in-service programs on partograph.*

SNO	Demographic Data	F	%
1	<b>Age</b>		
	a) 19 years	10	8
	b) 20 years	40	32
	c) 21 years	53	42
	d) 22 years	22	18
2	<b>Educational qualification</b>		
	a) Diploma in Nursing	33	26
	b) BSc Nursing	92	74
3.	<b>Religion</b>		
	Hindu	101	81
	b) Christian	22	18
	c) Muslim	2	2
4	<b>Have you attended any in- service programme on Partograph?</b>		
	a) Yes	65	52
	b) No	60	48



*Fig 1: knowledge and skill on partograph among the nursing students*

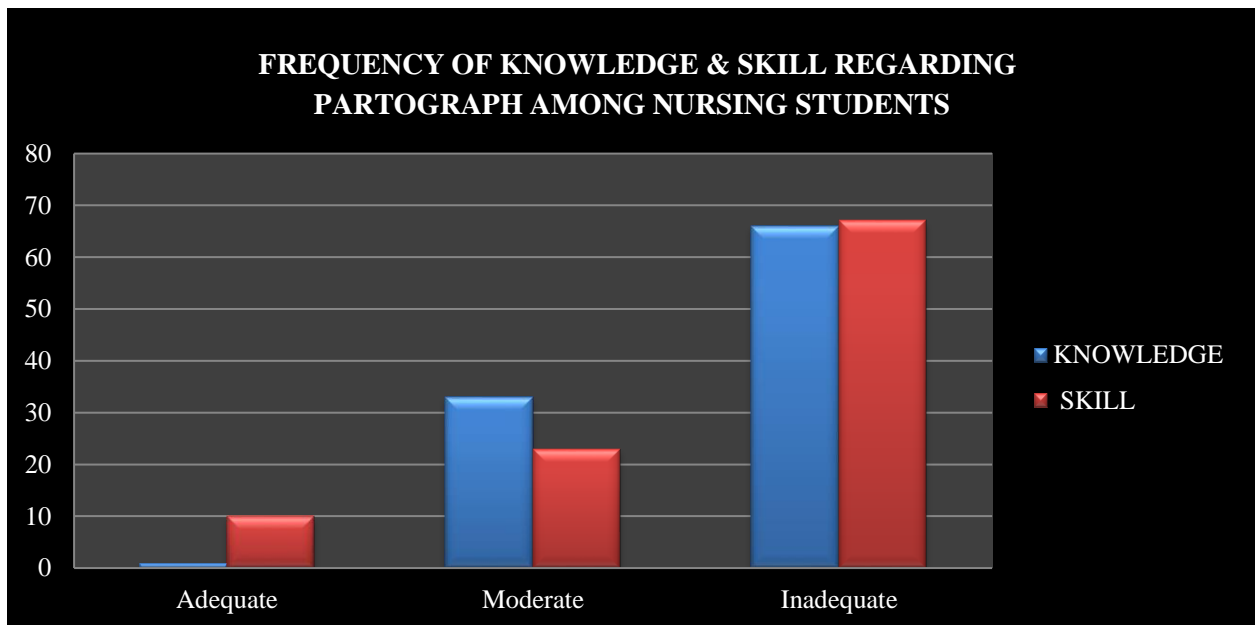
**Table 2: knowledge and skill on partograph among the nursing students**

KNOWLEDGE	Frequency	Percentage %
Adequate	1	1
Moderate	41	33
Inadequate	83	66

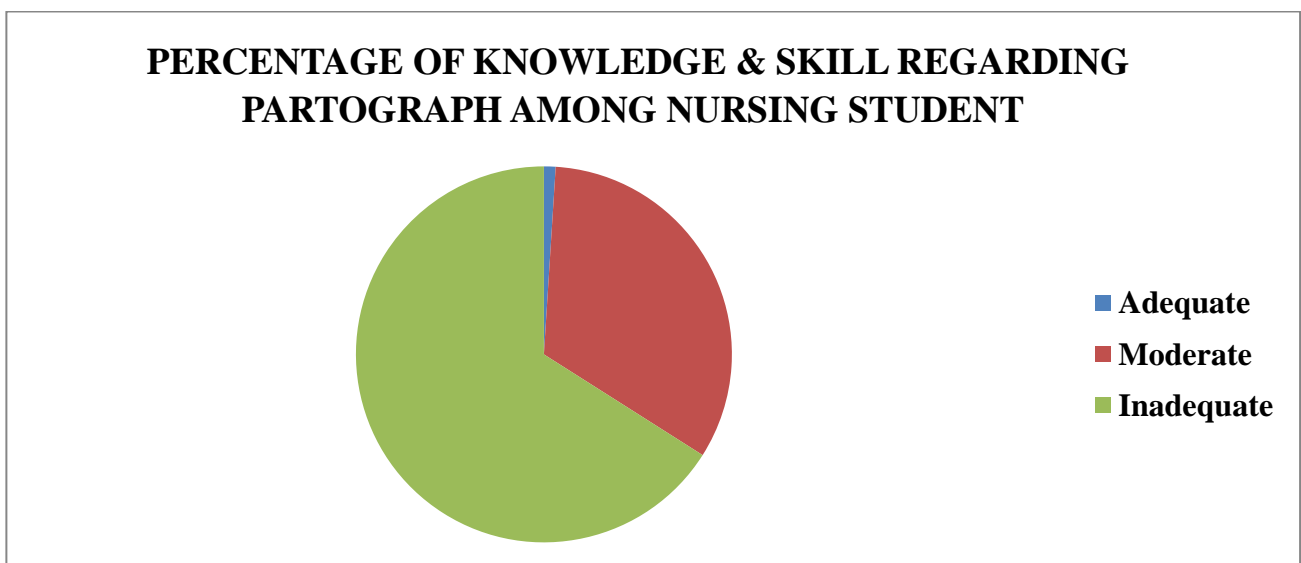
SKILL	Frequency	Percentage %
Adequate	12	10
Moderate	29	23
Inadequate	84	67

In the knowledge assessment of partograph, 66% of student’s demonstrated inadequate knowledge, 33% displayed moderately adequate knowledge, and only 1% exhibited adequate knowledge. Similarly, in the skill assessment of partograph, 67% of students showed inadequate skill, 23% had moderately adequate skill, and 10% demonstrated adequate skill.

The findings highlight a discrepancy between theoretical knowledge and practical application of the Partograph among nursing students. While most students understood the tool's importance, fewer demonstrated proficiency in its use during simulations.



**Fig 2**



**Fig: 3**

**Table 3: Association Between the Level of Knowledge and Skill on Partograph Among Nursing Students and Demographic Variables**

There was a statistically significant association between the knowledge of the students with the demographic variables namely age & educational qualification at  $p < 0.05$  and there was no statistically significant association between the knowledge of the students with the demographic variables such as religion & attending the In-service education program.

There was a statistically significant association between the skill of the students with the demographic variables namely educational qualification at  $p < 0.05$  and there was no statistically significant association between the skill of the students with the demographic variables such as age, religion & attending the In-service education program.

## **7. HUMAN RIGHTS AND ETHICAL CONSIDERATION**

The study was approved by the ethical committee constituted by the college. Permission was obtained from concerned authority of College of Nursing, Chennai. Informed consent was obtained from the samples for their willingness to participate in the study.

## **8. CONCLUSION**

The study highlights the importance of enhancing nursing students' professional competencies through education on current innovations, mentorship, standardized practices, and fostering reflective learning. These strategies contribute significantly to their on-going professional growth. Introducing a self-instructional or self-paced learning module focused on monitoring labor progress using the partograph can effectively enhance their theoretical knowledge and practical skills, supporting better outcomes in maternal care.

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