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Assessment of the knowledge and practice of partograph among staff nurses working in the selected hospitals at Murshidabad, West Bengal: A descriptive study

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Abstract

Introduction

Labour, the process of giving birth is often a difficult time for many pregnant women. Almost all (94%) of maternal deaths occur in developing countries (World Health Organisation 2019). It is seen that most of the complications occur during the labour process. One of the tool recommended by the World Health Organization utilized by midwives to effectively manage labour is the photograph. Therefore, this study is aimed to determine the proportion of knowledge and practice level of nursing staffs and to find out the association between the level of knowledge and socio- demographic variables and also with level of practice level and socio demographic variables.

Methodology

A quantitative research approach with descriptive study design was used among 50 staff nurses working in the selected hospitals (Lila Hospital, Kanapukur rural hospital, and Krishnapur rural Hospital) in Murshidabad, West Bengal. A self-structured questionnaire had used to assess the knowledge level and self- structured checklist had used to access the practice level of the participants regarding utilization of photograph and categorize the participant's knowledge and practice level in three categories (Good, average and poor) respectively.

Results

It was seen among 50 participants, majority of them had average knowledge (66%). Level of practice regarding partograph was 06% had poor, 30% had average and 64% had good practice level regarding use of partograph. It also showed statistically that age, gender, qualification level, etc demographic variables had significant Association with knowledge level at the level of significance P <0.05 and also age, gender, qualification level, years in service, etc demographic variables had significant Association with practice level at the level of significance P < 0.05.

Conclusion

Women who are at high risk of having complicated labour (prolong labour, obstructed labour, etc) can only be identified by the correct use of partograph.

Keywords: Partograph, knowledge score, practice score

Introduction

Pregnancy and childbirth are events that touch nearly every aspect of human experience. Labour is a series of continuous, progressive contractions of the uterus which help the cervix to open/dilate and to thin/effaced allowing the fetus to make through the birth canal. Labour usually starts two weeks before or after the estimated date of delivery. However, no one knows exactly that triggers the onset of labour. Throughout the first stage of labour, careful monitoring and recording of wellbeing of the mother and the fetus and the progress of labour is important. This stage helps to know whether labour is progressing normally or to recognize any early interventions. This is done by maintaining partograph [1].

The Partograph is a simple inexpensive tool to provide a continuous pictorial overview of labour. Recognition and early detection of abnormal labour progress using a partograph can be primary strategy for health care providers to prevent delays in the management of labour complications, which can lead to adverse maternal and need neonatal health outcomes.

Objectives of the study:

- To assess the level of knowledge of partograph among the staff nurses.
- To assess the level of practice of partograph among the staff nurses.
- To find out the association between practice Score with selected demographic variables.
- To find out the association between knowledge Score with selected demographic variables.

Methodology

Research Approach & Design:

Quantitative Research approach/ observational hospital based descriptive study.

Research Setting

The study was conducted in Kanapukur Rural Hospital, Krishnapur Rural Hospital and Lila Hospital located in Murshidabad, West Bengal.

Variables:

1. **Independent variables:**
   - Age

- Gender
- Qualification level
- Place of work
- Years in service
- Word of practice
- In-service training received
- Average number of nurse midwives per shift in the unit
- How often you see the partograph
- Need of training regarding partograph

2. Outcome variables:
- Knowledge level
- Practice level of the nursing staffs regarding partograph.

Sample:
The sample of the present study included the staff nurses working in the selected hospitals and approximately 50 samples were selected based on the inclusion and exclusion criteria.
Sample size calculation:

N = 50

A study by Ojang IN, *et al.* has reported an 85% level of knowledge in the study and the sample size is estimated as 95% level of confidence.
Results from open Epi, Version 3, SPSS.
Criteria for sample selection:

1. Inclusion Criteria:
- Staff nurses working at maternity wards in the selected hospitals.
- Staff nurses who were willing to participate in the study.

2. Exclusion criteria:
Staff nurses who were working in the other wards in the selected hospitals.

Description of data collection tool:
Data collection is done by using self-structured tool including–
1. Socio demographic variables were collected by interview method.
2. Level of knowledge was assessed by self-structured knowledge questionnaire.
3. Level of practice was assessed by checklist.

All responses were recorded and numerical score was given to each characteristic and at the end the scores were calculated to give total score and segregated in 3 categories.
For knowledge questionnaire the numerical score was –
- Poor (1-7)
- Average (8-14)
- Good (15-20)

For practice checklist the numerical score was –
- Poor (1-7)
- Average (8-14)
- Good (15-20)

Data collection procedure:
Study is approved from the institution head as well as BMOH/MS of the hospitals. Observation is done during the data collection. The data Collection Procedure is recorded. Scoring is given based on the knowledge and Practice level of the staff nurses. The data is put in the data Sheet for analysis, the data collection Period was 1 week from 17.06.24 to 23.06.24.

Data analysis
The collected data from the Participants will be transfer to excel sheet and analysis were done by using SPSS. The distribution of Categorical variables such as - Age, Sex, qualification level, ward of Practice, etc, were expressed in terms of frequency and Percentage. The level of knowledge and Level of Practice were summarized by Proportion with 95% confidence level. Association of Knowledge score with demographic Variables will be expressed by Chi-square test. Association of level of Practice Score with demographic variables will be expressed by Chi-square test. All the statistical analysis will be carried out of 5% level of significance with 'P' Value <0.05 as statistically significant.

Study findings & discussion
As per the study findings, the level of knowledge regarding partograph among the staff nurse was assessed -among 50 Participants 28% is having good knowledge, 06% is having poor and 66% is having average knowledge. The mean score of Knowledge is 12.06 with standard deviation is 2.92.
Supporting study: Bisht P, *et al.* (2022) conducted a study to assess the knowledge on the use of partograph among 30 staff nurses working in selected hospitals of Haridwar, Uttarakhand. The result shows that 59.0% was having inadequate knowledge, 31.0% had moderate knowledge and 11% have adequate knowledge regarding Partograph [2].
As per the study findings: The level of Practice regarding Partograph among the staff nurses was assessed -Among 50 Participants 64% is having good practice, 30% having average practice and 06% having Poor practice. The mean score of the Practice is 15.32 and SD is 3.95.
Supporting study: Dayabati S, *et al.* (2022) conducted a study to assess the level of practice and utilization of Partograph in labour room in Haldwani, Uttarakhand among 30 nurses by using non - experimental descriptive design and chi - square test. The result showed that 70% (21) of respondents had inadequate practice and 30% (9) of respondents had adequate Practice [3].
Other findings of the study: Age is associated with the level of knowledge among staff nurses at the 0.05 level of significance.
Supporting study: Pooja AB, *et al.* (2023) conducted a study to assess the knowledge regarding different labour positions among nurses working in maternity units of selected hospitals in Pune City with a view to develop self - instructional module among 220 nurses by using quantitative research approach with non-experimental descriptive method. The selected demographic variables as p-value is > than level of significance (0.05%) for all variables. Demographic variable Include age, professional qualification, total year of experience, total year of experience in maternity unit [4].
Age, Qualification level & Years in service is associated with the level of practice among staff nurses at the 0.05 level of significance.
Supporting study: Takang WA, *et al.* (2022) conducted a study to attitudes, practice and factors affecting the use of the Partogram by professional's midwives in Labour of

delivery in the Bafut Health District among 65 professional midwives. This study revealed that 34 (52%) had good practice, 47 (72.3%) of Participants had good attitude, 375 (79.3%) Participates averse monitored using a Partogram. The demographic variables include age, sex, professional qualification and professional tenure [5].

Table 1: Frequency distribution of study subjects in relation to Socio- demographic variables

Sl no	Variables	Category	Frequency	Percentage (%)
1.	Age	≤ 24 years	08	16
		24 – 30 years	27	54
		≥ 30 years	15	30
2.	Gender	Male	-	-
		Female	50	100
3.	Qualification level	G.N.M.	37	74
		B.Sc.	11	22
		P.B.B.Sc.	02	04
		M.Sc.	-	-
4.	Years in service	≤1 years	04	08
		1 – 6 years	25	50
		≥ 6 years	21	42
5.	Place of work	Government Hospital	38	76
		Private Hospital	12	24
		Health Centre	-	-
6.	Ward of practice	Antenatal ward	30	60
		Labour room	20	40
		Postnatal ward	-	-
7.	In - service training received regarding	Yes	30	60
		No	20	40
8.	Average no of Nurse Midwives per shift in the unit	1 – 3	39	78
		4 – 6	11	22
		≥ 6	-	-
9.	How often you use the Partograph	Rarely	06	12
		Always	31	62
		Occasionally	13	26
10.	Need of training regarding Partograph	Agreed	27	54
		Strongly Agreed	23	46
		Disagreed	-	-

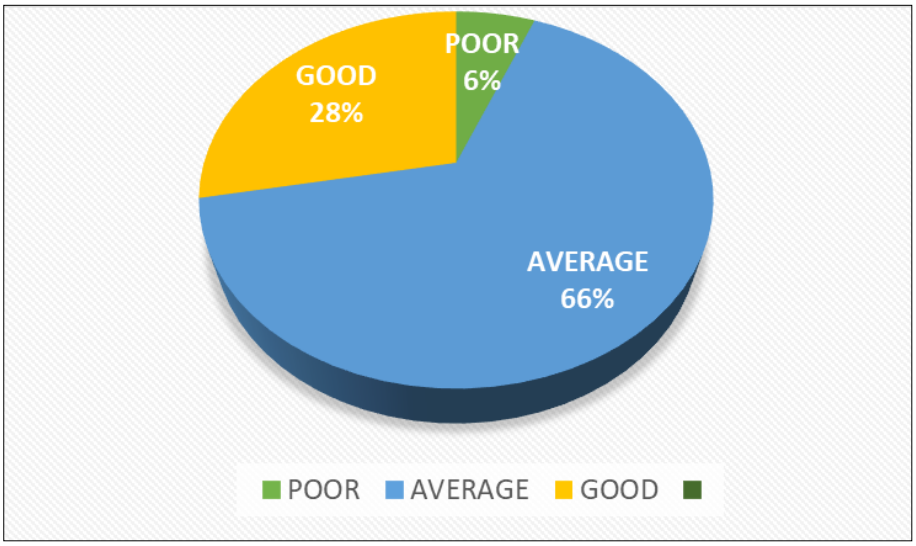

Fig 1: Showed that Knowledge score among the participants were good 28%, poor 6% & average 66%.

Table 2: Showed that the proportion of staff nurses who had poor Practice were 06%, average Practice were 30% and good Practice were 64%. Mean and standard deviation of Practice Score are 15.32 and 3.95 respectively

Sl No	Level of Practice	Practice score		Mean	Standard Deviation
		Frequency	Percentage (%)		
1.	Poor	03	06	15.32	3.95
2.	Average	15	30		
3.	Good	32	64		

Conclusion

Partograph plotting is very important aspect of intra-natal care. Therefore, skill and knowledge regarding photograph is mandatory for all nursing professionals working in Maternity unit. So that appropriate and timely management can be implemented and also maternal mortality and morbidity rate will be reduced.

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