



Obstetrics & Gynaecology

“A STUDY TO ASSESS THE KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING PARTOGRAPH MAINTENANCE AMONG NURSING PERSONNEL WORKING AT LABOUR ROOM OF SELECTED HEALTH CARE FACILITIES OF NORTH BENGAL.”

Ms. Celestina Subba

Government College Of Nursing, North Bengal Medical College And Hospital Darjeeling (West Bengal, India)

ABSTRACT

The partograph is a simple chart for recording information about progress of labour, maternal and foetal condition. The study was conducted among 112 nursing personnel of labour room at selected health care facilities of North Bengal, by descriptive survey design, on non-probability convenience sampling technique. Maximum 91% were G.N.M, 58% belonged to the service year from group 1 to 10 yrs, 68% belonged to experience in labour room from group 1 to 5 yrs. Majority 96% had exposure to in-service education programme. Most of 87% had skill lab in service education programme. The mean score on knowledge level was 13.75, median was 14, range 8-16 and standard deviation was 1.70. Mean score related to attitude level was 45.59, median was 45, range 36-54 and standard deviation was 4.08. Mean score related to practice level was 7.83, median was 8, range 6-10 and standard deviation was 0.89. Most of 72% had average knowledge, 74% had positive attitude and 93.74% had moderate practice level on maintenance of partograph. This study showed positive correlation coefficient ($r = 0.16$) between knowledge and practice among nursing personnel regarding maintenance of partograph, that was significant as evident from calculated 't' value 1.99, which was more than the table value in $df(n-2)$ 110, at 0.05 level of significance. The findings of the present study had several implications in the field of nursing education, nursing practice, nursing administration and nursing research for future research in this area.

KEYWORDS :**INTRODUCTION**

“The very first requirement in a hospital is that it should do the sick no harm.”

-Florence Nightingale

Maternal mortality continues to be a worldwide burden. “Every year, out of an estimated 120 million pregnancies that occur World Wide, about half million women die because of complication of pregnancy and child birth.”¹ However, globally the number of women, who die each year due to issues related to pregnancy and childbirth, has dropped and much progress has been made in the recent years to prevent the maternal deaths, “Maternal mortality refers to deaths due to complications from pregnancy or childbirth. From 2000 to 2017, the global maternal mortality ratio declined by 38 per cent - from 342 deaths to 211 deaths per 100,000 live births, according to UN inter-agency estimates. This translates into an average annual rate of reduction of 2.9 percent. While substantive, this is less than half the 6.4 percent annual rate needed to achieve the Sustainable Development global goal of 70 maternal deaths per 100,000 live births.”²

The government of India has been focusing on much progress to prevent maternal deaths. “India's maternal mortality ratio (MMR) has improved to 103 in 2017-19, from 113 in 2016-18. This is according to the special bulletin on MMR released by the Registrar General of India March 14, 2022.”³ During child birth, complications cannot be predicted, labour although it is natural process, has been regarded to be the most painful journey of a woman, during this process complications may arise any time. The bulk of maternal deaths and complications may be due to obstructed and prolonged labour, “The number of maternal deaths as a result of obstructed labour and/or rupture of the uterus varies between 4% and 70% of all maternal deaths, amounting to a maternal mortality rate as high as 410/100,000 live births.”⁴ “Prolong labour is a leading cause of death for maternal and newborns in the developing countries.”⁵

“According to the news click report of 14th March, “West Bengal registered an alarming 10-point jump in MMR, going from 98 to 109. The TOI report said the state has seen worsening MMR for the last three surveys.”⁶ Maternal morbidity and mortality rate may decrease in the state with sufficient health care facilities including the correct knowledge, attitude and practice regarding plotting the partograph, which can prevent various complications during and before child birth. “The MMR declined in India by about 70% from 398/100 000 live births (95% CI 378-417) in 1997-98 to 99/100 000 (90-108) in 2020. About 1.30 million (95% CI 1.26-1.35 million) maternal deaths occurred between 1997 and 2020, with about 23 800 (95% CI 21 700-26 000) in 2020, the leading causes of maternal death were obstetric haemorrhage (47%; higher in poorer states), pregnancy-related infection (12%) and hypertensive disorders of pregnancy (7%). India could achieve the UN 2030 MMR goals if the average rate of reduction is maintained.”⁷

To avoid the chance of complications or maternal death all births should be assisted by skilled health professionals. Timely management and treatment can make the difference between life and death for both the mother and therefore the baby. Proper interventions and early detection of abnormal progress can improve the outcome of labour, which is possible with managing and monitoring of a simple tool called partograph or partogram. “Partograph is a record of all the observations made on a woman in labor; the central feature of which is the graphic recording of the dilatation of the cervix.”⁸ The partograph is typically a pre-printed paper form on which labour observation are recorded, for an improved monitoring of labour progress for maternal and foetal well being, and this tool is discussed throughout the study. Maternal morbidity and mortality increases to insufficient facilities in health care settings and inadequate knowledge, attitude and practice of plotting the partograph. Hence skilled assistance during labour is that the vital and key service to cut back the rates of maternal mortality and morbidity rates. Therefore, this study is conducted to assess the knowledge, attitude and practice regarding partograph maintenance among nursing personnel performing at labour room of selected health care facilities of North Bengal.

OBJECTIVES

1. To assess the knowledge regarding maintenance of partograph among nursing personnel.
2. To find out the attitude regarding maintenance of partograph among nursing personnel.
3. To identify the practice regarding maintenance of partograph among nursing personnel.
4. To find out the correlation between knowledge and practices regarding maintenance of partograph among nursing personnel.

Research Methodology**Research Approach**

Non - experimental research approach.

Research Design

Descriptive survey design.

Variables**Selected demographic variables;**

1. Professional qualifications
2. Service year
3. Experience in labour room
4. In-service education programme
5. Name of the in-service education programme

Research variables;

1. Knowledge,
2. Attitude, and
3. Practice, on maintenance of partograph.

Setting of the present study

Pilot study;

1. Sukna BPHC.

Final study;

1. North Bengal Medical College & Hospital, Darjeeling.
2. Naxalbari Rural Hospital,
3. Kharibari Rural Hospital,
4. Kurseong Sub-Divisional Hospital,
5. Darjeeling District Hospital,
6. Kalimpong District Hospital,
7. Matigara BPHC
8. Takdah BPHC

Population:Nursing personnel working at government health facilities.

Sampling Technique: Non-probability convenience sampling.

Sample: Nursing personnel working at labour room.

Sampling criteria

Inclusion criteria:

All nursing personnel working at labour room more than one year of selected health care facilities of North Bengal.

Exclusion criteria:

Nursing personnel not working at labour room.

Sample size:

Pilot study = 10

Final study=112

Table 1. Data collection tool and techniques

Tool	Variables	Tool	Technique
1.	Demographic variables	Semi-structured questionnaire	Paper -pen
2.	Knowledge	Structured questionnaire	Paper -pen
4.	Attitude	Structured questionnaire, 5 point likert scale.	Paper -pen
3.	Practice	Checklist	Observation method

Analysis and Interpretation of Data

The analysis and interpretation of data on final study collected from structured, semi- structured questionnaire and observation checklist, of 112 respondents, to assess the knowledge, attitude and practice regarding partograph maintenance, among nursing personnel working at labour room of selected health care facilities of North Bengal. Analysis and interpretations of data were based on information collected from respondents those were participating in the study. The result was computed using descriptive and inferential statistics based on the objective of the study. Findings were grouped under three sections according to the objectives in different tables and figures.

Section-I Findings related to selected demographic profile of nursing personnel, characterized by table and diagram through frequency and percentage distribution.

Frequency and percentage distribution of demographic profile of nursing personnel working at labour room.

Demographic profile of nursing personnel

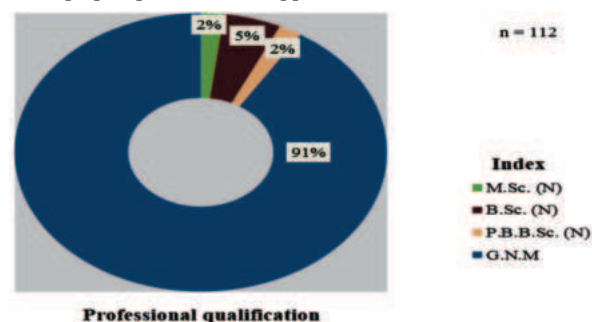


Figure 1. Doughnut diagram showing percentage distribution of Professional qualification of nursing personnel.

The above Figure 1. Depicts that 91% of nursing personnel were G.N.M and only 2% were M.Sc.(N) and 2% P.B.Bsc. (N).

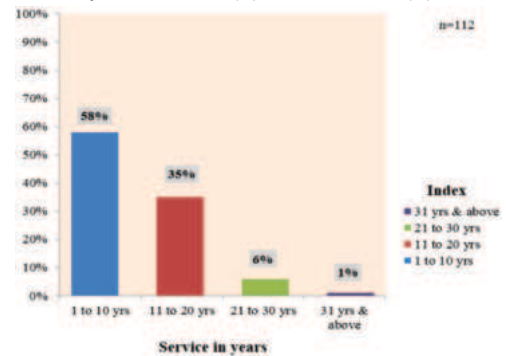


Figure 2. Bar diagram showing percentage distribution of service in years of nursing personnel.

The above Figure 2. Depicts that service years of nursing personnel from group 1 to 10 yrs were 58% and only 1% from group 31 yrs & above.

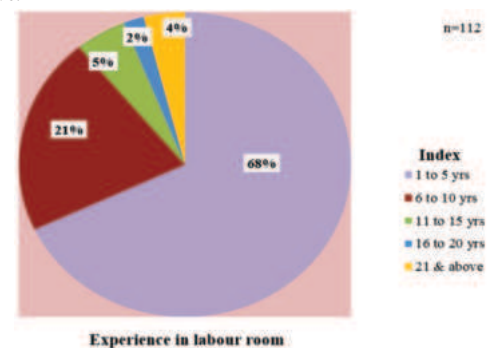


Figure 3. Pie diagram showing percentage distribution of nursing personnel experience in labour room.

The above Figure 3. Depicts that 68% of nursing personnel were experience in labour room from group 1 to 5 yrs and only 2% of nursing personnel were experience in labour room from group 16 yrs to 20 yrs.

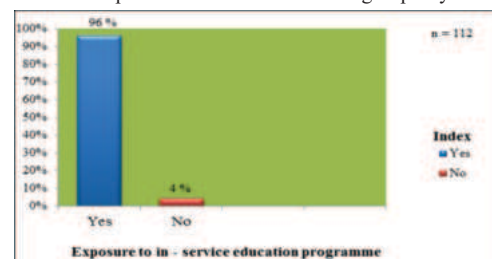


Figure 4. Bar diagram showing percentage distribution of nursing personnel exposure to in-service education programme.

The above Figure 4. Depicts that 96% of nursing personnel had exposure to in-service education programme.

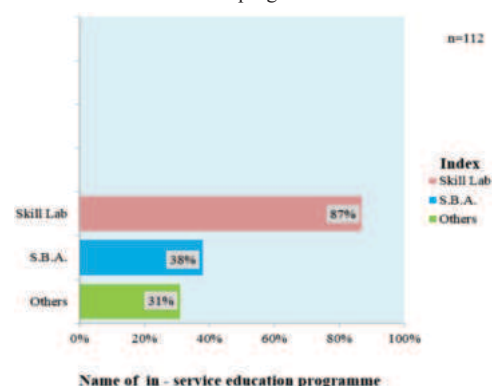


Figure 5. Bar diagram showing percentage distribution of nursing personnel attended to in-service education programme.

The above Figure 5. Depicts that 87% nursing personnel had skill lab in-service education programme, 38 % had skill birth attendant in-service education programme and 31% had other in service education programmes includes PPIUCD, HIV, IV infusions, Neonatal resuscitations, OSCE, NSSK, Infection control, Kayakalp, Breast feeding, Covid 19 donning & doffing.

Section II

Findings related to knowledge, attitude and practice of nursing personnel regarding maintenance of partograph, in terms of mean, median, range and standard deviation.

Table 2. Mean median, range and standard deviation of knowledge, attitude and practice of nursing personnel regarding maintenance of partograph. n=112

Sl.No	Variables	Range	Mean	Median	Standard Deviation
1.	Knowledge	8 - 16	13.75	14	1.70
2.	Attitude	36 - 54	45.59	45	4.08
3.	Practice	6-10	7.83	8	0.89

The data in Table 2. Showed that mean score related to knowledge level among nursing personnel on maintenance of partograph was 13.75, median was 14, range 8 - 16 and standard deviation was 1.70.

Mean score related to attitude level was 45.59, median was 45, range 36 - 54 and standard deviation was 4.08.

Mean score related to practice level was 7.83, median was 8, range 6 - 10 and standard deviation was 0.89.

Table 3. Findings related to knowledge of nursing personnel regarding maintenance of partograph in terms of frequency and percentage distribution. n=112

Sl. No	Variables	Scoring criteria	Frequency	Percentage (%)
1.	Knowledge	Good Knowledge >M+1SD (>15)	12	11
		Average Knowledge < M-1SD to > M+1SD (12 to 15)	81	72
		Poor Knowledge < M-1SD (< 12)	19	17

Maximum obtained score =16, minimum obtained score =8
The data presented in above Table 3. Showed that 72% of nursing personnel had average knowledge and only 11% had good knowledge on maintenance of partograph.

Table 4. Findings related to attitude of nursing personnel regarding maintenance of partograph in terms of frequency and percentage distribution. n=112

Sl. No	Variables	Scoring criteria	Frequency	Percentage (%)
2.	Attitude	Highly Positive Attitude >M+1SD (>49)	23	21
		Positive Attitude < M-1SD to > M+1SD (41to 49)	83	74
		Negative Attitude < M-1SD (<41)	06	05

Maximum obtained score = 54, minimum obtained score =36
The data presented in above Table 4. Showed that 74% of nursing personnel had positive attitude and only 5% had negative attitude on maintenance of partograph.

Table 5. Findings related to practice of nursing personnel regarding maintenance of partograph in terms of frequency and percentage distribution. n=112

Sl. No	Variables	Scoring criteria	Frequency	Percentage (%)
3.	Practice	High Practice >M+1SD (>9)	03	2.68
		Moderate Practice < M-1SD to > M+1SD (7to9)	105	93.74

Sl. No	Variables	Scoring criteria	Frequency	Percentage (%)
3.	Practice	Low Practice < M-1SD (< 7)	04	3.57

Maximum obtained score = 10, minimum obtained score =6

The data in Table 5. Showed that 93.74% of nursing personnel had moderate practice and only 2.68% had high practice level on maintenance of partograph.

Section III

Findings related to correlation between the knowledge and practices regarding maintenance of partograph among nursing personnel.

Table 6. Coefficient-correlation between knowledge and practice of nursing personnel regarding maintenance of partograph. n = 112

Sl. No	Variables	Mean	Correlation Coefficient (r)	t-value
1.	Knowledge	13.75		
			0.16	1.99
2.	Practice	7.83		

't' value, at df 110, 1.98 at > 0.05 level of significance.

The data presented in the above Table 6. Showed that there is a positive correlation coefficient (r = 0.16) between knowledge and practice of nursing personnel regarding maintenance of partograph. Here correlation coefficient is significant as evident from calculated 't' value 1.99 which is more than table value in df (n-2) 110, at 0.05 level of significance. So there is significant positive co-relation between knowledge and practice regarding maintenance of partograph among nursing personnel working at labour room of selected health facilities of North Bengal.

So, research hypothesis (H₁) can be developed as there is significant correlation between knowledge and practice of nursing personnel regarding maintenance of partograph at 0.05 level of significance.

DISCUSSION

Major findings of the present study

Section-I: Findings related to selected demographic profile of nursing personnel, characterized by table and diagram through frequency ad percentage distribution.

1. Majority of respondents 91% were G.N.M. and only 2% were M.Sc.(N) and 2% P.B.B.Sc. (N).
2. Maximum respondents 58% belonged to the service year from group 1 to 10 yrs and only 1% from group 31 yrs & above.
3. Maximum respondents 68% belonged to experience in labour room from group 1 to 5 yrs and only 2% from group 16 yrs to 20 yrs.
4. Majority of respondents 96% had in-service education programme.
5. Most of the respondents 87% had skill lab in service education programme, 38 % had skill birth attendant in-service education programme and 31% had other in service education programmes.

Section-II: Findings related to knowledge, attitude and practice of nursing personnel regarding maintenance of partograph in terms of mean, median, range and standard deviation.

1. Mean score related to knowledge level among nursing personnel on maintenance of partograph was 13.75, median was 14, range 8-16 and standard deviation was 1.70.
2. Mean score related to attitude level was 45.59, median was 45, range 36-54 and standard deviation was 4.08.
3. Mean score related to practice level was 7.83, median was 8, range 6-10 and standard deviation was 0.89.

Findings related to knowledge of nursing personnel regarding maintenance of partograph in terms of frequency and percentage distribution;

Majority of nursing personnel 72% had average knowledge, 11% had good knowledge and 17% had poor knowledge on maintenance of partograph.

Findings related to attitude of nursing personnel regarding maintenance of partograph.

Majority of nursing personnel 74% had positive attitude and only 5% had negative attitude on maintenance of partograph.

Findings related to practice of nursing personnel regarding maintenance of partograph.

Most of the nursing personnel 93.74% had moderate practice and only 2.68% had high practice level on maintenance of partograph.

Section-III: Findings related to correlation between knowledge and practices regarding maintenance of partograph among nursing personnel.

In this study, that there is a positive correlation coefficient ($r = 0.16$) between knowledge and practice of nursing personnel regarding maintenance of partograph. Here correlation coefficient is significant as evident from calculated 't' value 1.99 which is more than table value in df (n-2) 110, at 0.05 level of significance. So there is significant positive co-relation between knowledge and practice regarding maintenance of partograph among nursing personnel working at labour room of selected health facilities of North Bengal.

CONCLUSION

The study was conducted among 112 nursing personnel regarding maintenance of partograph that concluded most of respondents had average knowledge; most of respondents had positive attitude and moderate level of practice. The correlation coefficient between knowledge and practice was found to be significant with a positive relationship at the level of 0.05 level of significance.

In spite of average knowledge and positive attitude, the practice level was moderate regarding maintenance of partograph among nursing personnel, which can be improved to better practice level through constant monitoring, supervision and training.

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