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Original Research Article

A study to assess the perceived barriers in utilization of partograph

Shivani Sharma[1]*, Saroj Parwez[2], Kiran Batra[3]

[1]Mata Sahib Kaur College of Nursing, Mohali, Punjab, India
[2]Swami Devi Dayal College of Nursing, Barwala, Panchkula, India
[3]Rattan Professional College of Nursing, Sohana, Punjab, India

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***Correspondence:**
Dr. Shivani Sharma,
E-mail: sharmashivani_vs@yahoo.ca

ABSTRACT

Background: Though maternal mortality can visualize the decreasing trends in India, but still we need to work hard for attaining sustainable development goals. As per the WHO, partograph must be used to monitor labor of all intra-natal mothers, but its implementation is limited due to various barriers experienced by health workers. The aim of the study was to assess the barriers which are experienced by the health care providers in actual utilization of the existing partograph.
Methods: Qualitative research approach was adopted to understand the views related to the partograph. Interview technique was adopted to collect data. Various focus group discussions were conducted from November 2018 to March 2019 to gather data related to barriers experienced by the partograph users in the hospital setting. The participants were from the health centres and educational institutions of Mohali and Patiala districts of Punjab.
Results: Certain factors were highlighted in the discussion which needs to be addressed if we want that partograph should be used to its maximum potential. It brought to light various themes and factors which lead to underutilization of the existing partograph. The results highlighted the factors related to the partograph utilization, factors related to health centre, factors related to components of the partograph and enhancement of utilization of the partograph.
Conclusions: It can be concluded that in developing countries like India, where we are still struggling with the maternal and child health issues, attention should be drawn to the actual problems faced by the health care providers so that maternal and perinatal outcomes can be improved.

Keywords: Barriers, Utilization, Partograph

INTRODUCTION

Mother experiences unimaginable joy when she holds her new-born child, but in India the birthing process can be tragic many times.[1] In the year 2017, nearly 2,95,000 mortalities occurred annually related to pregnancy or the complications relates to pregnancy. Majority of the deaths take place in lower- and middle-income countries. Globally, around 86% of the maternal deaths occur in African and Southern Asian regions.[2] As per the sustainable Developmental goals 2030, we need to reduce the maternal mortality and morbidity rates, but it still seems like a distant dream.[3]

Though we are acquiring great achievements but still a lot of work is required to improve our birthing experiences. A graphic labour monitoring tool which is called as a partograph helps the health care staff to know about the forthcoming difficulties in the labour and take timely action to reduce the burden of maternal and foetal anomalies such as obstructed labour, fistulas, trauma, infection, birth asphyxia and death. It consists of three sections, that is, maternal condition, foetal condition and progress of labour (Figure 1). Cervical dilatation, descent of the head and uterine contractions are the components for progress of labour. Maternal condition is monitored by blood pressure, pulse rate, temperature and urinalysis. The

foetal condition is assessed by foetal heart rate, amniotic fluid colour and foetal skull moulding. One can see when the augmentation is required or there is need to refer woman to a higher center.[4]

Partograph is being used for more than 40 years but still one cannot deny the deaths occurring from obstructed labour, which raises the concern that there are certain loop holes in its implementation.[5] Literature suggests that certain issues are being faced by the health care staff while using the partograph which in turn impacts on the outcomes of mother and foetus. One needs to have comprehensive evaluation of the results. If looked deeply, it is considered as a complex intervention. Because of its impactful outcomes, one has to take care of number of factors[6]. Filling of the partograph requires just a pre-printed chart to be used as a routine care. Though it seems to be an appropriate technology to be used in the developing countries for caring the mother in labour, it is reported to be underused in almost all the settings.[7] Not only national, but global guidelines recommend the use of partograph for monitoring the progress of labour. These guidelines are to be followed for identifying any complications arising in the labour and to timely manage any deviations by providing appropriate care.[8]

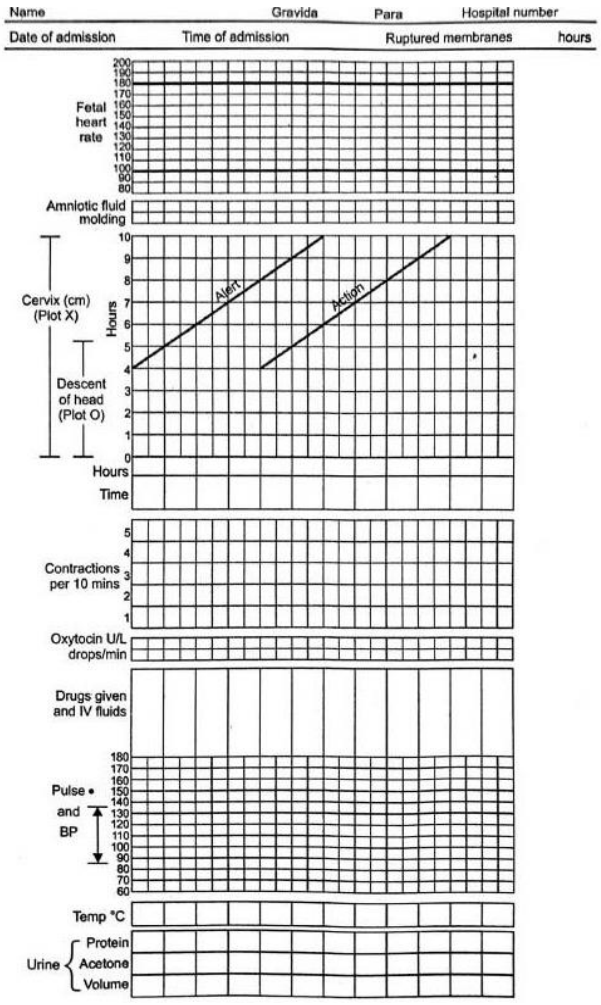

Figure 1: The partograph.

METHODS

Objective

To seek heterogeneous opinion of the group regarding current practices followed while using partograph and barriers experienced by the health care staff in the health centres.

Type of study

Qualitative- Focus group discussion (FGD)

Qualitative self-report data was collected by FGD. To assess the perspective about the existing partograph, nurse educators and staff nurses working in the labour room were invited for the Focus group discussions. The participants were asked about their attitude about the existing partograph, current practices and the perceived barriers faced by the health care personnel while using the partograph.

Selection criteria of the subjects

Non-probability purposive sampling techniques was used to recruit study subjects. Nurse educators having M.Sc. Nursing in Obstetrics and gynaecological nursing from various nursing institutes with minimum one year of teaching experience as well as nurses with job experience of more than one year in the labour room of various health centres participated in the study. Nurse educators and nurses working in the Mohali and Patiala districts of Punjab, having familiarity with topic and who were assertive to share their views voluntarily were included in the focus group discussions.

Ethical approval

The approval to conduct the study was taken from Institutional ethical review committee vide no. SOCON 9954 B. Participants were provided with the detailed information about the purpose of the study and written consent was obtained from all the participants.

Number of discussions

Multiple focus group discussions were conducted to achieve the saturation. There was the participation of 19 nurses and 25 nurse educators in the total seven group discussions, out of which four discussions were conducted with the nurse educators and three discussions with the staff nurses. The duration of each discussion was around fifty minutes to one hour.

Format of FGD

Discussion format was carefully set with predetermined questions. Investigator framed ten open ended questions to make the discussion free-flowing. Two introductory questions were set to make the participants comfortable in

the beginning. Six guiding questions were set to get the essence of the discussion and two concluding questions were included to assess if anything is missed in the discussion at the end. Data in the discussion was gathered on the following areas of interest: (a) attitude towards the existing partograph; (b) awareness regarding the components of the partograph and the perspective regarding important components considered by the participants; (c) issues faced by the staff nurses while using the partograph; and (d) amendments desired by the staff to get interested in filling the graph

Process of data collection

Participants were sent invitation for participation along with the detail of pre-set venue, around one week before the discussion. Comfortable room was arranged for the participants so that conversation can take place in a free and conducive environment. Ground rules and purposes were explained in detail to the participants before each discussion. Participants were explained about the tentative duration of the discussion. Data for the present study was collected from November 2018-March 2019.

Data analysis

For the present study, thematic analysis of the collected data was done. Audiotapes of the discussion, notes taken by the moderator and the important points recalled by moderator and assistant moderator were used for the analysis purpose. Icebreaker question was used in the beginning to make the participants comfortable. Three main methods used for analysing the data were- (a) tape-based analysis in which the researcher prepared short transcript of each discussion which was helpful to focus on the research question; (b) note-based analysis in which notes from the focus group discussions were used primarily to verify the content of interest; and (c) memory-based analysis in which events of the focus group discussions were recalled by the moderator.

Further, focus group data was categorized into three types, i.e. individual data, group data, and/or group interaction data. Researcher herself did the initial coding of the data and also an independent researcher was asked to code the data present themes separately for validation. To integrate the themes and factors which emerged from the data, consensus approach was used. Identification of potential issues and concepts was done from relevant words, sentences and phrases of the text and were coded.

Table 1: Distribution of study population in focus group.

S. No.	No. of FGD	No. of participants	Type of participants
1	4	25	Nurse educators
2	3	19	Staff nurses
Total	7	34	--

RESULTS

After the discussion, the analysis was done in accordance with Colaizzi's et al method.[9] The coding of the transcripts was done by reading the verbatim of the transcripts (reading and re-reading), significant statements were identified and their meaning was formulated. The themes were clustered and finally the comments of the participants were referred again for clarity. The participants mentioned that with the regular use of the partograph, maternal and foetal outcomes can be improved and safety can be ensured. Certain themes and factors were emerged in the discussion which are mentioned in Table 2.

Table 2 shows the perspective related to problems in partograph utilization. Participants expressed that safety of the midwife is guarded if partograph is used but it lacks clarity. It is made for convenience but it is not found clear and easy while using. There is confusion in the columns and components. The shading pattern, dots, lines are complex to fill by the health care staff, so it is considered as burden. It is seen as a graph full of boxes only. It is being avoided by the staff as they find it difficult. Significance of alert and action lines was also not clear to the subjects.

Much stuff is there to fill but at the same time delivery also needs to be conducted. Scarcity of time in the labour room is also the concern.

Nurses say, if they have to fill this graph, there is need to visit mother time and again which adds to the workload. Hence, there may be certain mistakes while filling, so they do not want to be accountable for this.

Participant showed positive attitude for partograph but at the same time there was a concern for clarity issues.

"*With partograph safety is not neglected. It not only helps in care of mother and foetus, but it safeguards midwife also. But, I feel there is lack of clarity, such as how and when to do different observations*."

Informant 1, group 1

Participants mentioned statements such as, "*practical implementation is little tough. What to do and how to do.....not clear. I think there is problem in understanding also*."

Informant 4, group 3

It was stated that outlook has to be clearer. Participant mentioned that, "*Dekhne me hi bahut zyada lagta hai*" (participant says that seems too much to look at).

Informant 2, group 5

"…..Bas easy hona chahiye. Kaun iske sath sir marega?" (should be just easy, who will break head with this?

Informant 2, group 2

"Bharne me dikkat lagti hai kyuki samajhne me bhi mushkil lagta hai." (find hard to fill because cannot understand)

Informant 5, group 2

Accountability was the factor mentioned by the participants which makes them reluctant to fill the graph. "*Nobody wants to be accountable for filling if the things go wrong."*

Informant 2, group 1

"*Kya cheez kitni baar bharni hai ya dekhni hai, Baar baar chakkar lagana padta hai"* (What thing has to be filled or observed how often, one has to visit again and again).

Informant 2, group 7

Table 3 reveals the perceived barriers related to the health centre. Participants observed certain factors related to the health centre that lead to problems in using partograph by staff members. There are no regular checks by the supervisors which was considered as a salient feature by the participants. For effective implementation, regular meetings, in-service education programs, effective supervision and audit are considered as mandatory features.

Constant checks are required for serious implementation. One of the factors was the amount of workload perceived by the health care workers in the labour room. The file work, more number of patients and shortage of staff act as hindrances in the utilization of partograph. Filling of partograph is considered as an extra work in the areas where nurse patient ratio is inappropriate. Few statements mentioned by the participants are, "*if the head nurse is not supervising, staff nurse may not fill the graph*."

Informant 4, group 1

"*Partograph saves nurse from the legal issue. But, constant checks are not there, so no one is serious*."

Informant 2, group 3

"*Workload is too much here. No time to do any extra work"*

Informant 8, group 1

"If you want to make us fill, give us more staff also."

Informant 3, group 2

Table 4 discusses about the perceived barriers related to the components of the partograph. Focus group participants mentioned that certain guidelines or instructions need to be there on the chart as labour rooms are busy most of the times.

Any key or instruction on the graph can make it easier for the nurses to refer and fill the graph. When it is taught during the study period, student nurses generally do not pay much attention. If it is partially filled by a duty nurse, another nurse expressed her difficulty in interpreting the findings.

Less space of writing, specifically in the drugs section was a major observation by the participants.

The key statements expressed are, "*I believe partograph can be made easier with keywords written somewhere....."*

Informant 5, group 1

Participants said that books are good source of information, but those cannot be opened in the clinical are for referring. "*Though things are written in the books, but it is not possible to open books here*."

Informant 4, group 4

*"Kuch likha ho,,,jo samajh me aaye" (*participant expressed that something should be in writing, which can be understood).

Informant 2, group 2

"*Student nurses generally don't pay much attention during training period, so some written stuff is required to fill during the job*."

Informant 5, group 3

"*Hamari teacher ne training ke time padhaya tha. That's it…. Uske baad nhi padha"* (participant told that teacher taught her during her nursing training period. After that she didn't study. She expressed the need to refresh her knowledge).

Informant 6, group 2

I have seen nurses getting confused while marking graph also". This statement was expressed by a senior M.Sc nusing tutor.

Informant 3, group 3

"*Very small size to read on the chart with less space to write also*."

Informant 5, group 3

Table 5 shows the different factors expressed by the participants which can enhance the partograph utilization. Almost all the participants wanted it to be simpler and more colourful with instructions on the same page. Timing

of the observations such as vital signs of the mother and foetus need to written on the graph.

Descent of the head is the difficult feature for the nurses to assess. The shading pattern of 'uterine contraction' also seems to be confusing for the participants.

Few statements expressed by the participants were: "*Normal or abnormal condition may be highlighted with colouring or shading*."

Informant 2, group 1

Participants mentioned that colouring can let us know about the things which can be taken care by the staff nurses or the conditions where the client has to be referred. *"Yes, colouring distinguishes ki ye staff nurse ke control me hai, aur kis cheez me refer karna hai*"

Informant 7, group 1

"It is not clear that how often a particular observation has to be made. Hence, nurses fill it as and when felt."

Informant 4, group 5

"*We get confused while marking contractions. Few keywords can help in that*"

Informant 8, group 1

"Some of the nurses are not familiar with mild, moderate, severe contractions. There should not be any need to see here and there while filling. It should be friendly to me."

Informant 2, group 5

The data reveals that though the attitude of health care staff is positive towards the partograph but it is still not properly used due to various factors.

Table 2: Emerged factors on barriers related to problems in utilizing partograph.

Themes	Factors
Barriers related to problems in utilizing partograph	a) Not clear
	b) Complex to fill
	c) Difficult in understanding
	d) Scarcity of time
	e) Accountability issues
	f) Require number of visits

Table 3: Emerged factors on barriers related to health centre.

Themes	Factors
Barriers related to health centre	a) No audit
	b) Workload
	c) Staff shortage

Table 4: Emerged factors on barriers related to components of the partograph.

Themes	Factors
Barriers related to components of the partograph	a) No key or instructions on the graph
	b) Less space to write
	c) Difficult to interpret the findings

Table 5: Emerged factors on enhancement of partograph utilization.

Themes	Factors
Enhancement of partograph utilization	a) To include colour coding
	b) Having instructions on same page
	c) To mention observation timing
	d) To reduce number of visits by having observations at one time.
	e) To have clarity in the descent of the head
	f) To have clarity in filling contractions

DISCUSSION

The study revealed that though there is positive attitude towards the partograph but health care staff is not strongly motivated to practically use it. Various factors are responsible for underutilization of the labour tool. The present findings show that informants perceive workload as the prominent barrier in the partograph utilization. As per the study conducted by Zelellw et al, shortage of staff was one of the barriers in the health facilities which causes inefficient use of the partograph in the labour as there are only one or two midwives in many health centres.[10]

Lack of supervision was the factor reported by the participants in the discussions conducted in the present study. Around 20.4% of the participants in the study conducted by Hagos et al reported the same factor for the non-utilization of the partograph.[11]

Consistent with the above findings, a study conducted by Haile et al showed lack of supervision, lack of manpower and lack of audit as the main reasons for the non-utilisation of the partograph.[12] Another study conducted by Neke et al reported that lack of understanding of the partograph and lack of skill result in underutilization of the partograph in the health settings.[13] Some obstetric care providers are of the view that partograph is not only time consuming, but it is complex too.[14]

Another study conducted by Melese et al on utilization of partograph during labour: a case of Ethopia, mentioned reasons for not using the partograph in the maternity units as, using different monitoring tools, overloaded staff and

shortage of health care staff.[15] The present study revealed that health care staff lacks proper understanding of the partograph and there are concerns to fill certain components of this graph. Participants emphasized on the problems in filling of uterine contractions, marking on the graphs and meaning of alert and action lines. Similar findings were reported by the study conducted by Asibong et al on the use of partgraph in labour monitoring: a cross-sectional study among obstetric caregivers in Hospital of Nigeria, which showed that most of the subjects had poor understanding regarding various components of the partograph such as alert lines, action lines, graph plotting and marking uterine contractions in the graph. The study also focussed on the 'shortage of staff' and partograph as 'time consuming' task in the labour rooms.[16] Magon et al also reported in their study that if the partograph is not understood properly by the caregivers, they may resist to use it. Workload pressure was another reported factor.[17]

Limitation

The study was conducted in the selected areas, as well as the subjects were selected by non-probability purposive sampling technique, which may affect the generalizability of the findings. Study used qualitative approach to explore the barriers of partograph utilization that may affect the generalizability of the findings. Study used focus group discussion approach hence personal barriers of nurses might have not been explored during the discussion hence extracted barriers might not be exhaustive, there could be other barriers of partograph utilization. Even though a well-planned written script was used for conducting focus group discussion but researcher herself was involved in the data interpretation that might have increased the chances of subjectivity or bias.

CONCLUSION

Though there is sufficient amount of information on the partograph, but still it is not being effectively used in many developing countries. For reducing unnecessary interventions, use of partograph is required but certain factors make it unsuitable to be used by the healthcare staff. Despite being considered important by the nurses; willingness is not seen to actually use this graph. There may be a need to revise the graph as per the present need.

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