



Evaluation of the Use of Partographs in Midwives Post Normal Delivery Care Training

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Abstract. Background: The partograph is an instrument for assessing the progress of labor. Monitoring labor with a partograph can avoid three delays that can cause maternal and infant death because it can avoid neglected labor, establish pathological conditions as early as possible and then make referrals for help. In reality, partographs are not optimally used for decision making when pathological labor is discovered. Normal Childbirth Care Training provides refreshment for midwives in filling out and reading partograph results properly. Objective: To evaluate partograph filling in midwives after Normal Childbirth Care training Method: This research is an analytical cross-sectional study with samples taken from alumni of Normal Childbirth Care training from 13 classes from June 2022- June 2023 totaling 61 people. Data collection uses google form filling. The time for data collection is approximately 4 weeks. The data that has been collected is scored, coded and analyzed using SPSS univariately and bivariately. Results: There is a relationship between partograph policies in the workplace, supervision of partograph equipment, partograph knowledge, partograph skills and compliance with partograph use. Conclusion: The partograph is very important to use to assess the progress of labor. Therefore, health workers, especially midwives, are obliged to comply with filling out partographs correctly regardless of whether there is a policy or supervision.

Keywords: Partograph, Normal Childbirth Care Training.

1. Introduction

The partograph is a tool to monitor the progress of the first stage of labor in the active phase and as information for making clinical decisions. The use of a partograph in every delivery can ensure that the mother and baby receive safe, adequate and appropriate care and prevent complications that could endanger the safety of the life of the mother and newborn. Birth assistance that does not use a partograph can result in the progress of labor not being monitored, which can lead to delays in making decisions regarding labor management if there are complications [1]. Maternal deaths are caused by delays in recognizing the high risk of mothers giving birth. Monitoring labor with a partograph can avoid three delays that can cause maternal and infant death because it can avoid neglected labor, establish pathological conditions as early as possible and then make referrals for help [2].

Midwives as providers of midwifery services are the spearhead in reducing maternal mortality rates. clinical studies published in BMC Pregnancy and Childbirth 2014, 14: 281, WHO report in 2013 and research by Abebe et al published in the Science Journal of Clinical Medicine 2013; 2(2): 26-42 concerning the use of partographs by health workers (doctors, midwives and nurses) stated that although this birth assessment instrument has been used since 1970, the results are still very unsatisfactory. As many as 50% of midwives in villages do not use partographs routinely because they find it difficult and require a long time to monitor because the birth is carried out in the patient's home and the recording is complicated [3]. Thirty percent (30%) of PMB have not utilized a partograph. They reasoned that detecting complications of childbirth could be done through experience of helping or feeling, so they considered using the partograph to be a waste of time and also had no effect on their duties and careers [4].

This gap occurs due to a lack of understanding of how to fill in and analyze the data in the partograph chart, the level of compliance with the requirement to use a partograph, regulations that require attaching a partograph for reimbursement of labor costs, so that the true purpose (monitoring the progress of labor) is neglected and possibly misused.

The results of the partograph study stated that many deliveries were monitored with a partograph and then referred to the hospital because the graph began to cross the alert line and was therefore interpreted as pathological. It turned out that when she arrived at the hospital she gave birth spontaneously without complications. Referring to incidents like this, 80% of clinics and hospitals are waiting to make partographs after the baby is born or after delivery (data On the Job Training from 33 public health center PONED and POEK Hospital in Jakarta at 2013/ 2014) [5], Clinical Training Center for Reproductive Health (P2KP-KR) there is no age limit for participating in APN training. The main requirement is that participants have completed a minimum of DIII Midwifery education. It is estimated that when you graduate from DIII Midwifery you are approximately 21 years old.

Age influences the increase in knowledge because of the mental abilities needed to learn and organize new situations such as remembering things previously learned, analogical reasoning and creative thinking. Where at an average age of 20-35 years, intellectual maturity is developing and reaching its peak.

Education

In APN training, one of the materials provided is partograph filling. Participants are given training on how to fill the partograph correctly, record observations and progress of labor, detect whether the labor process is progressing normally, detect the possibility of prolonged labor and monitor the condition of the mother and fetus [5].

2. Method

This research is an analytical cross-sectional study [6]. Samples were taken from 13 classes from June 2022 to June 2023. Data collection used the method of filling out a Google form. Google form for each APN class alumni group distributed through the Normal Childbirth Care training alumni group. The Google form contains partograph knowledge questions, partograph questions that must be filled in and then the partograph results are uploaded, and a compliance questionnaire for the use of partographs in each respondent's workplace. The time for data collection is approximately 4 weeks. The data that has been collected is scored, coded and analyzed using SPSS univariately and bivariately.

3. Result and Discussion

3.1. Respondent Characteristics

Age

Table 1. Age

	N	Min	Max	Mean	SD
Age	61	21.00	45.00	30.0984	6.33957
Valid					

The table shows that the youngest respondent is 21 years old and the maximum is 45 years old with an average age of 30 years. At the Primary Clinical Training Center for Reproductive Health (P2KP-KR) there is no age limit for participating in APN training. The main requirement is that participants have completed a minimum of DIII Midwifery education. It is estimated that when you graduate from DIII Midwifery you are approximately 21 years old.

Age influences the increase in knowledge because of the mental abilities needed to learn and organize new situations such as remembering things previously learned, analogical reasoning and creative thinking. Where at an average age of 20-35 years, intellectual maturity is developing and reaching its peak.

Education

Table 2. Education

	frequency	percent	cumulative
Profession	3	4.9	4.9
Bachelor	10	16.4	21.3
Academic	48	78.7	100

61	100
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The table shows that 48 people have a DIII Midwifery education or 78.7%, 10 people have a Bachelor's Degree in Midwifery or 16.4% and 3 people have a Midwifery Profession or 4.9%. APN training for DIII Midwifery is required as a competency certificate to assist with childbirth. This is different from the midwifery profession, which already has the competence to assist with childbirth independently.

Years of service

Table 3. Years of Service

	frequency	percent	cumulative
>10 tahun	24	39.3	39.3
<10 tahun	37	60.7	100,0
	61	100	

The table shows that 24 people have worked >10 years or 39.3% and 37 people have worked < 10 years or 60.7%. Working period > 10 years is said to have sufficient experience to handle childbirth. Those less than 10 years old, improve their skills in assisting childbirth by attending APN training. It is hoped that labor will proceed normally, but it does not rule out the possibility of pathological progress. In this APN training, they are also taught how to suture the perineum, early detection of abnormalities in labor, resuscitation of newborns, manual handling of the placenta, BBL examination.

Workplace

Table 4. Workplace

	frequency	percent	cumulative
Hospital	18	29.5	29.5
PublicHealth Center	17	27.9	57.4
Clinic	25	42.6	100.0
	61	100	

The table shows that 18 people work in hospitals or 29.5%, 17 people in community health centers or 27.9%, and 26 people in clinics/Midwife Independent Practices or 42.6%.

3.2. Lastly take part in APN training

Table 5. Lastly take part in APN Training

	frequency	percent	cumulative
< 5 years	19	31,1	31,1
> 5 years	42	68,9	100,0
	61	100	

The table shows that there was supervision of 54 people or 88.5% and there were no supervision of 7 people or 11.5%. Supervision is very necessary to evaluate partograph filling in every delivery. Those who had >5 years of training were 42 people or 68.9%. It is better to update APN training every 5 years to train midwife skills. This also applies to the example of (Obstetric and Neonatal Emergency First Aid Training) PPGDON training.

3.3. Availability of Partographs in the Workplace

Table 6. Availability of partographs in the workplace

	frequency	percent	cumulative
Available	58	95,1	95,1
Not available	3	4,9	100,0
	61	100	

The table shows that 58 people or 95.1% had partographs and 3 people or 4.9% did not provide partographs. Partographs must be used in all deliveries. All health facilities should provide partographs.

3.4. Partograph Policy

Tabel 7. Partograph policy

	frequency	percent	cumulative
Available	54	88,5	88,5
Not available	7	11,5	100,0
	61	100	

The table shows that those who have a partograph policy are 54 people or 88.5% and those who don't have a policy are 7 people or 11.5%. The policy regarding mandatory partography is very helpful in orderly documentation. The progress of labor is well monitored and can detect pathological conditions such as the uterus not progressing, fetal distress, amniotic fluid (mixed with meconium, blood or dry), infiltration indicating a mismatch between the

head and pelvis, contraction abnormalities such as uterine inertia, secondary and uterine hypertonia.

3.5. Supervision

Table 8. Supervision

	frequency	percent	cumulative
Available	54	88,5	88,5
Not available	7	11,5	100,0
	61	100	

The table shows that there was supervision of 54 people or 88.5% and there were no supervision of 7 people or 11.5%. Supervision is very necessary to evaluate partograph filling in every delivery.

3.6. Partograph Knowledge

Table 9. Partograph knowledge

	frequency	percent	cumulative
Good	49	80,3	80,3
Not enough	11	18,0	100,0
	61	100	

The table shows that 49 people or 80.3% of respondents had good knowledge, 11 people or 18% had sufficient knowledge and 1 person or 1.6% had poor knowledge. This knowledge can vary because some have attended training for > 5 years, so they have not received the latest knowledge updates about partograph filling, and need to refresh the APN again.

3.7. Partograph Skills

Table 10. Partograph skills

	frequency	percent	cumulative
Competent	53	86,9	86,9
Not competent	8	13,1	100,0
	61	100	

The table shows that 53 respondents were competent or 86.9% and 8 people were incompetent or 13.1%. Errors in filling out the partograph are due to something wrong in determining how to enter the partograph. The requirements for entering a partograph are adequate contractions, namely at least 3 times in 10 minutes lasting more than 40 seconds

and having entered the active phase (4 cm). If not, then observe 1 hour later to determine whether you can enter the partograph or not. This is the latest update from APN training. For those with partographs who don't pay much attention to contractions for a long time, the condition forentering a partograph is that they are in the active phase.

3.8. Compliance with Using the Partograph

Table 11. Compliance with Using the Partograph

	frequency	percent	cumulative
Obedient	46	75,4	75,4
Not obidient	15	24,6	100,0
	61	100	

The table shows that those who complied filled in the partograph correctly were 46 people or 75.4%and those who did not comply were 15 people or 24.6%. If you have attended APN training, midwives should be required to use a partograph at every birth. Use of the Partograph according to JNPK-KR (2008:57) the partograph must also be used for all mothers in the active phase of the first stage of labor and is an important element of labor care, during labor and birth of the baby in all places (home, health center, private midwife clinic, home illness, etc.), and routinely by all birth attendants who provide birth care to the mother and the birth process of her baby (obstetric specialists, midwives, general practitioners, residents and medical students).

3.9. Relationship Between Respondent Characteristicsand Compliance with Using Partpgraph

Education

Table 12. Education * Obedience of the midwifeto fill the partograph crosstabulation

		Obedience ofthe midwife to fill the partograph		total	P value
		obidient	Not obidient		
Educational	Profesi	3	0	3	0,439
	S1	9	1	10	
	D3	37	11	48	
total				61	

The table shows that there are 3 people who comply with professional education, and there arenone who do not comply. There were 9 people who complied with Bachelor's degree education,

One person who did not comply. There were 37 people with DIII Midwifery education who complied and 11 people who did not comply. P value 0.439, there is no relationship between education and midwife compliance in filling out the partograph.

According to research, education is the most strategic means and method for the development of human resources. The importance of midwife education for the development of knowledge is not only through formal education but also informal such as training or seminars with the hope that the more the midwife's knowledge and skills increase, the better the midwife's attitude will be in providing midwifery services, namely monitoring the birth process using a partograph [7].

3.10. Years of service

Table 13. Years of Service * Obedience of the midwife to fill the partograph crosstabulation

		Obedience of the midwife to fill the partograph		total	P value
		obidient	Not obidient		
Years of service	>10 tahun	18	6	24	0,399
	<10 tahun	31	6	37	
total				61	

The table shows that 18 people have worked > 10 years and 6 people have not complied. Those who had worked < 10 years were 31 people who complied and 6 people who did not comply. The P value of 0.399 shows that there is no relationship between the midwife's work experience and the midwife's compliance in filling out the partograph.

Working period is an indicator that can influence the improvement of a person's skills. The longer a person's working period, usually the level of skills regarding their field of work will increase. The productivity of someone who has worked for a company for a long time, meaning that as they get older, may increase because they have more experience and are wiser in making decisions.

3.11. Workplace

Table 14. Workplace * Obedience of the midwife to fill the partograph crosstabulation

		Obedience of the midwife to fill the partograph		total	P value
		obidient	Not obidient		
Workplace	Hospital	15	3	18	0,124
	Public Health Center	16	1	17	

	Clinic	18	8	26
total		49	12	61

The table shows that 15 people working in hospitals are compliant and 3 people are non-compliant. There were 16 people who worked at the community health center who complied and 17 people who did not comply. There were 18 people who worked in clinics/PMBs who complied and 8 people who did not comply. P value 0.124, there is no relationship between workplace and partograph filling compliance.

The definition of the work environment is the totality of tools and materials encountered, the surrounding environment in which a person works, work methods, and work arrangements both as individuals and as a group. "A conducive work environment provides a sense of security and allows employees to can work optimally. If an employee likes the work environment where he works, then the employee will feel at home at work carrying out his activities so that working time is used effectively. On the other hand, an inadequate work environment can reduce employee performance [8].

3.12. Relationship Between Availability of Partographs in the Workplace and Compliance with Partograph Use

Table 15. availability of partographs in the workplace * Obedience of the midwife to fill the partograph crosstabulation

		Obedience of the midwife to fill the partograph		total	P value
		obidient	Not obidient		
availability of partographs in the workplace	There is	43	15	58	0,310
	There isn't any	3	0	3	
total		46	15	61	

The table shows that there are 43 compliant partographers available and 15 non-compliant partographers. There were 3 people who were not available who were compliant and there were none who were not compliant. P value 0.310, there is no relationship between the availability of partographs in the workplace and compliance with partograph use. The availability of partographs makes it very easy for midwives to fill them out.

According to WHO (1984) "one of the causes of a person having certain behavior is the availability of facilities" and Anderson (1968) quoted by Siswoyo (2003) states that a situation that can make an individual able to provide health services properly is influenced by good resources from providers and recipients of services as well as facilities and infrastructure.

To display partograph filling behavior, equipment is needed so that to overcome the limitations of this behavior, the facilities and infrastructure and quality of service required must be available, in line with Green's statement (1980) quoted by Wardhani (2008), one of which is the availability of resources is the facilities and infrastructure. related to health services to maintain the quality of services provided.

3.13. Relationship Between Partograph Policy in the Workplace with Compliance with Partograph Use

Table 16. Partograph policy in the workplace with compliance with partograph use partograph crosstabulation

		Obedience of the midwife to fill the partograph		total	P value
		obidient	Not obidient		
Partograph policy in the workplace	There is	47	7	54	0,000
	There isn't any	2	5	7	
total		49	12	61	

The table shows that there are 47 people who comply with the policy and 7 people who do not comply. There is no policy that 2 people comply and 5 people do not comply. P value 0.00 there is a relationship between partograph policies in the workplace and compliance with partograph use

Support from superiors is a tool to encourage midwives to contribute positively so that they work as expected. According to Caplan (1988) quoted by Anwar (2006) support is a source of psychosocial assistance from influential people and is received by individuals through social activities which are expected to improve the welfare of those who receive it, this can be in the form of behavior, feedback, information, materials, advice and socialization. Support from superiors is very important in providing guidance to individuals who work in the health sector. This is useful as motivation that encourages them to work better.

3.14. Relationship Between Supervision of the Completeness of the Partograph with Compliance with the Use of the Partograph

Table 17. Supervision of the completeness of the partograph with compliance with the use of the partograph crosstabulation

		Obedience of the midwife to fill the partograph		total	P value
		obidient	Not obidient		
Supervision of the completeness of the partograph	There is	46	2	48	0,000
	There isn't any	3	10	13	

total	49	12	61
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The table shows that there are 46 supervisees who comply and 2 people who do not comply. There was no supervision, 3 people were obedient and 10 people were disobedient. P value 0.00 there is a relationship between supervision of partograph completeness and compliance with partograph use

The results of research conducted by Linggasari (2008) show that supervision is one of the efforts to provide guidance and direction as well as suggestions after finding reasons and complaints about implementation in overcoming the problems faced. Coordinating midwives are midwives at community health centers or at district/city health services who, because of their abilities, are responsible for developing midwives in their work area, either individually or in groups [9].

There are three important aspects in carrying out supervision, namely; The planning stage, implementation stage, and monitoring and evaluation stage [10] must be carried out thoroughly (comprehensively) so that the main objective of supervision is to ensure that partograph recording results are correct and precise, in accordance with existing service operational standards can be achieved.

3.15. Relationship Between Knowledge of Partographs with Compliance with Partograph Use

Table 18. knowledge of partographs with compliance with the use of the partograph crosstabulation

		Obedience of the midwife to fill the partograph		total	P value
		obidient	Not obidient		
knowledge of partographs	good	47	9	56	0,015
	Enough	1	3	4	
	Not enough	1	0	1	
total		49	12	61	

The table shows good knowledge of 47 people who comply and 9 people who do not comply. Knowledge is sufficient for 1 person to comply and 3 people to disobey. Lack of knowledge that obeys 1 person. P value 0.015 there is a relationship between partograph knowledge and compliance with partograph use.

Knowledge is the result of knowing and this occurs after people sense a particular object. Sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste and touch, so that most human knowledge is obtained through the eyes and ears. The practice of filling partographs will not be carried out well without good will and awareness among students, so students need to improve their skills regarding normal delivery care

(APN) regarding the practice of filling partographs so that students will be able to fill partographs well and correctly.

Based on the research results, there were more respondents who had good knowledge and were compliant in filling out the partograph compared to respondents who were well knowledgeable and not compliant in the practice of filling in the partograph. This research is in line with the research of Erni Yuliasuti that there is a relationship between Knowledge and Compliance of midwives with Partograph Filling, that has been tested statistically with the chi-square test, obtaining a value of $p=0.001$, thus the hypothesis states that there is a relationship between Knowledge with Compliance in Partograph filling [11].

The results of this research are also in line with the research of Camila et al. The results showed $p < \alpha$ ($0.000 < 0.01$), so that the research results can be concluded that there is a correlation between the level of knowledge and the accuracy of writing partographs. (Camila, 2014). In Fasiha's research there was also a relationship between knowledge and the use of partographs in childbirth assistance with a value of $p = 0.008$ [12].

3.16. Relationship Between Partograph Skills with Partograph Usage Compliance

Table 19. Partograph skills with compliance with the use of the partograph crosstabulation

		Obedience of the midwife to fill the partograph		total	P value
		obidient	Not obidient		
Partograph skills	Competent	48	10	58	0,036
	Not competent	1	2	3	
total		49	12	61	

The table shows that there were 48 competent participants who complied and 10 who did not comply. There was 1 incompetent participant who complied and 2 people who did not comply. P value 0.036 there is a relationship between partograph skills and compliance with partograph use.

Good knowledge about the partograph is related to the partograph filling application, if the partograph is used properly it will increase knowledge and skills and improve active management of labor. Midwives with good knowledge about partographs will also provide good results in partograph filling applications [13].

4. Conclusion

Quality partograph filling requires the right knowledge and skills. So, the partograph can be an image for midwives or medical personnel to make decisions if pathological conditions are found.

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