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Original Research

Partograph pocketbook application specifically for midwifery students in filling out partographs

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Abstract
One of the objectives of the Health Education (midwifery) curriculum is to make midwives professionals in the early detection of maternal and neonatal emergencies. Compulsory courses that teach early detection are obstetric care for childbirth and newborns, namely early detection using a partograph. The results of preliminary studies in midwifery 3rd-semester students can be six (60%) filling in the partograph incorrectly and incompletely and four (40%) filling in the partograph correctly and completely. This study aims to analyze the effectiveness of applying partograph pocketbooks by students to fill out partographs. The research design used in the study was pre-experimental with the *one-group pretest-posttest design approach*. Partograph filling dependent variable and independent variable: partograph pocketbook. Has passed the ethical test with certificate number 1576/KEPK/STIKES-NHM/EC/1/20203. The statistical test used paired T-test with α 0.05. The results of the study of filling in the partograph of midwifery students before using the partograph pocketbook had a value of almost half 62-71, while the results of filling in the partograph of midwifery students after using the partograph pocketbook were mostly 82-91, statistical tests showed 0.00< 0.05 which means that the partograph pocket book effectively helps students in filling out the partograph. This research can be a source of knowledge for students to improve their skills in filling partographs.

Keywords: partograph; partograph pocketbook

1. Introduction

The world of education is developing every year. To improve the quality of education, it is necessary to update/innovate several curricula and learning. Education development is expected to synergize with the development of science and technology (Rahayu, 2020). After the COVID-19 incident, there are many ways for educational institutions to improve their quality, one of which is carried out by Wayuntasi 2023 using virtual methods (Ningrum &; Agustin, 2021; Wahyunita et al., 2020; Wayuntari, 2023). One of the objectives of the Health Education (midwifery) curriculum is to make midwives professionals in the early detection of maternal and neonatal emergencies. The courses required to detect complications early in Midwifery Care are Obstetric Care for childbirth and newborns, with early detection tools using partographs (Setiawati, 2022). In another study, Setiawati explained early detection in obstetric care for pregnancy and how to overcome it (Setiawati &; Qomari, 2022).

According to Basic Health Research (Riskesdas) in 2018, it is known that the proportion of first aid efforts for maternity mothers who experience childbirth complications is 25,538 people, consisting of immediately referred as many as 14,388 people (56.3%), not referred to as many as 4,754 people (18.6%) and not referred as many as 6,682 people (26.1%) (Kemenkes RI, 2018). Partograph is material for evaluating the birth process. As a tool for making clinical decisions, the partograph also warns health workers, especially midwives, that labor lasts long, emergencies occur in mothers and

babies, and as an immediate anticipation (Kemenkes RI, 2018). Based on Indonesian Midwives' competence, midwives' basic skill in the fourth competency is to observe the progress of birth by filling in a partograph. Based on the results of Ismiatun's 2022 research, there is an effect of partograph filling compliance on the incidence of childbirth complications in the Wajageseng Health Center work area in 2022 with a ρ value of 0.001< 0.05 (Indah et al., 2022; Ismiatun Zahraini, Supriyadi, 2022).

The preliminary study results on midwifery 3rd-semester students were ten students, six students (60%) filling in the partograph incorrectly and incompletely, and four (40%) filling in the partograph correctly and completely. The things that cause students not to fill in the partograph correctly are as follows: less interactive learning methods (*power points*), less student motivation to read books, and less skilled students (Isnaniah et al., 2021; Silfia, 2020). As for the impact that can be caused if students cannot fill out the partograph, the achievement target in obstetric care, childbirth, and newborns will not be achieved. How to overcome this by providing effective teaching methods to midwifery students, such as providing labor case questions that are applied to the partograph and presenting pocketbooks that students can read at any time when filling in the partograph (Setiawati, 2022). Therefore, researchers want to research the application of partograph pocketbooks in midwifery students as a guide for filling partographs. This study aims to analyze the effectiveness of applying partograph pocketbooks by students to fill out partographs**.**

2. Research Methods

The research design uses pre-experiment with *the one-group pretest-posttest design approach* where researchers conduct a pretest before giving action to respondents in the form of a pretest. Dependent variable: is partograph filling, and the independent variable: is partograph pocketbook. The research site is at the STIKES Ngudia Husada Madura Campus, and the date of the research implementation is January 13, 2023. The research population was 31 students in semester 3, for a research sample of 29 students whose taking was by purposive sampling. Before conducting research, researchers ask permission from the head of STIKES to conduct research, then ask students for approval for their willingness to become respondents. This research has been declared ethically worthy with certificate number 1576/KEPK/STIKES-NHM/EC/I/2023. Before being given teaching on how to fill in a partograph using a partograph pocketbook, students were given examples of childbirth questions and then asked to fill out a partograph according to the case. This was a pretest. Then students are taught to fill in a partograph using a partograph pocketbook for 30 minutes. Then students are given case questions again to fill in the pathography as a posttest. The bivariate test uses a static paired T-test α 0.05.

3. Results and Discussion

3.1.Partograph Filling Before Partograph Pocket Book Exposure

Table 1. Results of partograph filling scores of midwifery students

No	Value	Frequency	%
1	42-51	6	20.69
2	52-61	4	13.79
3	62-71	8	27.59
4	72-81	7	24.14
5	82-91	3	10.34
6	92-101	1	3.45
	Sum	29	100

Source: primary data 2023

Table 1 shows that almost half of the partograph filling scores of midwifery students are rated 62-71 (27.59%). To assess the filling of this partograph, researchers use a checklist or a checklist of partograph fillings. From the checklist for filling in the partograph during the pretest, students did not correctly fill in the fetal head reduction (46.6%), identity filling (53.4%), opening filling (53.4%), fetal head infiltration (55.2%) and in Kala 1 filling (55.2%). Partograph filling can be given the number 2 if students fill in the part of each partograph completely, precisely, and correctly. A partograph can be recorded completely if all pieces of information about maternal conditions, birth progress, and fetal conditions are accurately written with the partograph description (Afriani, Zulaeha A, 2023; Myles, 2011; Setiawati, 2022; Sharma et al., 2022).

Incomplete partograph filling can occur due to midwife students who do not know and are less dexterous in writing partographs. For example, in filling in partographs as supporting data, many components must be filled in so students become dizzy and do not understand. There are parts of the data whose filling is less clear symbols. Sari's research (2012) stated that doing partograph documentation was incomplete. It was noticed from writing observation diagrams of birth progress or in writing observation results during IV. In another study, Kartini (2013) stated that the shortcomings in partograph filling were caused by a lack of discipline, laziness, and not understanding the importance of filling a complete partograph (Indah et al., 2022; Rahayu, 2020).

3.2.Partograph Filling After Partograph Pocket Book Exposure

Table 2. The results of filling out the partograph of midwifery students after applying the partograph pocketbook

No	Value	Frequency	%
1	42-51	0	0
2	52-61	1	3.4
3	62-71	3	10.3
4	72-81	9	31.1
5	82-91	12	41.4
6	92-101	4	13.8
	Sum	29	100

Source: primary data 2023

Table 2 shows that almost half of the student's scores in filling out the partograph are 82-91, as many as 12 students (41.4%). This value can show that almost half of the students can fill in the partograph completely, precisely, and correctly. The partograph is said to be filled if all parts/fillings, namely in the fetal state, birth progress, and maternal state, are written completely, in detail, and precisely (Setiawati, 2022). Based on the partograph filling checklist, it can be seen that students can fill in precisely the amniotic state (100%), DJJ (98.3%), write the opening time (94.8%), checking blood pressure (94.8%), decreasing the fetal head (93.1%), infiltrating the fetal head (93.1%) and filling at time 2 (91.4%). Partographs must be filled in completely because partographs have the main objectives, namely: Recording observations and assessing the progress of labor partographs can detect whether labor is normally going or there are irregularities, therefore by filling in the partograph completely and precisely it can do early detection of any possibility of old partus (Jusmawati et al., 2021; Manna et al., 2022; Silfia, 2020).

3.3.The Effectiveness of Partograph Pocket Books in Helping Students Fill Out Partographs

Table 3. Data normality test

Group		Kolmogorov-Smirnov[a]		
		Statistic	df	Sig.
partograph value	pretest	0.147	29	0.113
	posttest	0.146	29	0.118

Source: primary data, 2023

Based on the normality test, the student partograph value on the pretest of 0.113>0.05 means a normal pretest partograph filling score, and a posttest value of 0.118>0.05 means a normal posttest partograph score. From the results of this normality for statistical tests on the effectiveness of partograph pocketbooks using paired T-tests with α 0.05

Table 4. Bivariate posttest and pretest analysis

Partograph filling	Mean	SD	Correlation	Sig.
Pretest	66.10	13.282	0.949	0.000
Posttest	81.41	8.192		

Source: primary data, 2023

Based on statistical tests, it was found that there was a difference in the average value of filling in the partograph of midwifery students before and after using the partograph guidebook, which was 66.10 and 81.41, which can be seen that there was an increase in the value of midwifery students in filling out the partograph with the difference in the increase in scores, namely previously the average value of 66.10 to an average of 81.41, which had a difference in values of 15.31, this increase was felt to be very significant and good. Partographs have a main task in diagnosing birth, and partographs are guidelines for observing normal labor and detecting emergencies in maternal and fetal disorders. Gustiawati 2012 stated that the inability to fill in the partograph is a screening for discrepancies that may occur during birth, for example, preeclampsy, prolonged labor, bleeding, and fetal distress (Ismiatun Zahraini, Supriyadi, 2022). The statistical test results are obtained $\rho<\alpha$ (0.00<0.05), which means Ha is accepted and means that the partograph pocketbook is effective in helping students fill out the partograph. Dewi Yulia Widyaningtyas (2014) conducted research, "The Relationship between Student Knowledge Level About Partographs and Partograph Filling Practice in Midwife Midwife Students in Semester IV at Stikes 'Aisyiyah Yogyakarta" the results of 103 students, as many as 51 students (49.5%) have the Graduated category, and as many as 52 students (50.5%) have the Not Graduated category (Indah et al., 2022; Widyaningtyas, 2014). The assessment of filling in this partograph is based on the partograph checklist and the student evaluation assessment method, namely the partograph documentation checklist (Ghulaxe et al., 2022; Widyaningtyas, 2014).

The assessment of filling in the partograph is assessed by looking at how students fill in the front and back of the partograph. The front of the partograph contains the patient's identity, fetal condition, and mother's condition. In contrast, the back contains labor records, Kala one, Kala two, Kala three, Kala four, and newborn. This partograph image has also been illustrated in Rahayu's 2015 research which explained that the partograph filling of the patient's biodata was filled (100%). The patient's biodata is very important to know about maternity data information. However, in partograph filling in fetal conditions, there is an incomplete 2%, and in the maternal condition, 3% (Rahayu, 2015; Toemandoek et al., 2015). In the results of this study, the fetal state is incomplete, filling in the amniotic membrane. The condition of the amniotic membrane can help determine the condition of the

fetal. If the box in the amniotic fluid cannot explain the occurrence of fetal distress in maternal conditions, it is incomplete in urine filling. If urine excretion is not monitored, it is feared that intrauterine infection will occur (Afifah, I., & Sopiany, 2017; Setiawati, 2022) as for the application of partographs on the back sheet. The back sheet of the partograph is a section for writing information on events during the birth and birth process as well as actions performed from labor time 1 to time four, including BBL. Therefore, on the back sheet of this partograph, it is called birth writing (Olayinka et al., 2021; Saudia, 2020; Setiawati, 2022). This research can be used as a source of knowledge to improve students' skills in filling out partographs.

4. Conclusion

The results of filling in the partographs of midwifery students before using the partograph pocketbook had a value of almost half 62-71, while the results of filling in the partograph of midwifery students after using the partograph pocketbook were mostly 82-91. The research data is normally distributed and homogeneous, so it can use the Statistical Pairet T-test with an α of 0.05. The results showed that partograph pocketbooks effectively assisted midwifery students in filling out partographs. To improve students' ability to fill in partographs, a pocketbook is needed with language and partograph filling tricks easily understood by students so that students can apply them during practice later. However, the results of this study still have many shortcomings. Many other factors still affect students' ability to fill in partographs, such as student habits in writing and filling in partographs and the existence of cases that train students to fill partographs.

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