

Community-Based Midwifery Care Approach (PASKIBRAKA) for Midwife in Denpasar City and Bogor City

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Abstract: *Maternal mortality can actually be prevented and avoided if detected and handled appropriately. The aim of the study was to find out the increase in knowledge and skills scores of midwives between pretest and posttest regarding community midwifery care efforts for mothers and families using the PasKiBraKa Package and an increase in the knowledge score of pregnant women regarding early detection of obstetric pathology and emergencies. This type of research was a quasi experiment with a nonrandomized pretest-posttest with control group design approach. The research locations were Health Care Center or Puskesmas I Denpasar Timur, Puskesmas II Denpasar Selatan, PuskesmasPulo Armin and PuskesmasMerdeka Bogor City. The sample size enrolled was 48 people per Puskesmas so that the total sample was 192 pregnant women who fulfills the inclusion and exclusion criteria. Midwives enrolled as respondents were 46 midwives, 32 midwives from the Denpasar City Health Center and 14 midwives from Bogor City. The results obtained from the analysis of different posttest score tests with pretest between the variables of self-efficacy, response effectiveness, severity, level of vulnerability and level of fear there are significant differences ($p < 0.05$). There was a significant relationship between the provision of PasKiBraKaintervention with midwives' knowledge and skills in early detection and management of obstetric emergencies ($p < 0.05$). In the intervention group, self-efficacy and severity scores in pregnant women were significantly related to respondents' knowledge of detecting early and emergency management ($p < 0.05$). There are still midwives who do not understand the components of community midwifery care. There are still obstacles in the form of the low competence of midwives in managing emergency cases in health care center, so training is needed.*

Keywords: community midwifery care, mixed method, self-efficacy, obstetric early detection and emergency management

1. Introduction

Increase maternal knowledge of danger signs during pregnancy and childbirth is an appropriate strategy to reduce and prevent delays in seeking help if a woman experiences problems, especially in poor and developing countries (1). The use or application of community care packages approaches has proven to be significant in reducing morbidity and mortality in mothers and children (2). The training conducted must use appropriate strategies in order to improve communication skills and skills as well as knowledge in the field of midwifery care (3). Previous studies of community health workers (CHW) that funding was more effective compared to place-based health service activities or in clinics (4).

Risk factors related to maternal and infant mortality and morbidity, including obstetric factors (bleeding, preeclampsia / eclampsia, infection, obstructed labor and unsafe abortion), and non-obstetric factors (poverty, gender inequality, low rights and education which influences the need for access to appropriate health facilities). Other factors in the form of limited knowledge and awareness, culture, cost, distance to health facilities, availability and quality of maternal health services affect the need for services (5,6).

The benefits derived from the community based approach in terms of health financing, especially disability-adjusted life year (DALY) is to reduce the incidence of morbidity that can reduce the costs borne by both families and governments (7,8,9). Previous studies of community health workers (CHW) that financing was more effective compared to

place-based health service activities or in clinics (4). This is because community-based activities reach a wider target and more numbers than activities that only wait in the clinic.

The research objective is to find out the increase in knowledge and skills scores of midwives between pretest and posttest regarding community midwifery care efforts for mothers and families using the PasKiBraKa Package and increasing knowledge scores of pregnant women regarding efforts to detect pathology and emergency early. There are several variables in the study, namely independent variables (use of Paskibrakamedia) and dependent variables (knowledge and skills of midwives).

2. Theoretical Background

Community midwifery focuses on mothers and toddlers in the family and community. Patients / clients are seen as social beings who have their own uniqueness, certain culture and are influenced by economic, political, socio-cultural and environmental factors. Community midwifery goals include: individuals (clients), families and communities / communities. The definition of midwifery competence according to Fullerton et al., (2010), states that midwifery competencies are "the combination of knowledge, psychomotor, communication and decisionmaking skills that enable an individual to perform a specific task to a defined level of proficiency (10). Competence would be objectively measured through a process of structured assessment, using objective standards of professional practice (knowledge, skills and abilities) as the criteria of quality, in order to document an acceptable level of performance."

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The most important emphasis of health education is on "decision making after being informed". According to Tannahil (1985) in Naidoo & Wills (2001), developing a model of health promotion that combines health education, prevention and health promotion as a whole or interrelated with one another. The Tannahil Model emphasizes the importance of additional activities in a variety of different areas (11). Figure 1 show about Tannahil Model for Health Promotion.

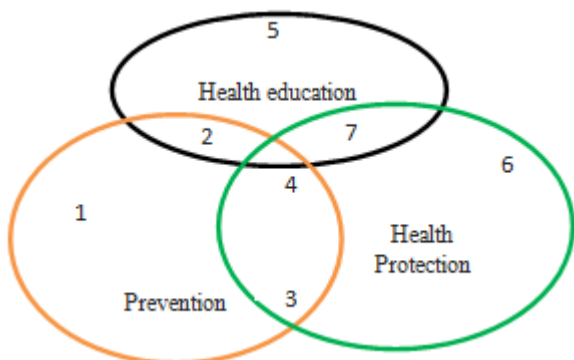


Figure 1: Tannahil's Model of Health Promotion (in Naidoo and Wills, 2001)

3. Material and Experiment

The quantitative research design is a quasi experiment with a nonrandomized pretest-posttest with control group design approach. The study population was midwives who provide midwifery care in selected community health centers in Denpasar City and Bogor City. The research sample was coordinator of midwives and provide midwifery services in outpatient and inpatient health centers in Denpasar Timur I Community Health Center, Denpasar Barat II Health Center, Pulo Armin Health Center and Merdeka Bogor City. Number of sample is the total sample that meets the inclusion and exclusion criteria. The time for conducting research data collection is held from July to middle of October 2019.

Training instruments for pregnant women in the form of pocket book media, DVD or video tapes, flip sheets and the Maternal and Child Health (MCH) book. Assessment sheets for midwives in the form of Vignette cases related to community midwifery care, flip sheets, observation sheets and in-depth interview guides. Pretest activities for midwives are carried out before the implementation of the intervention or training using the Paskibraka approach and posttest is conducted one week to two weeks after the intervention or depends on the schedule of repeat visits of pregnant women involved in research at the community health center (CHC). Midwives are grouped into two groups: the intervention group (midwives in Denpasar Timur I and Pulo Armin CHC) and the control group (midwives in Denpasar Selatan II and Merdeka CHC).

Univariate data analysis is processing data in the form of a percentage or proportion of each variable. Bivariate analysis to analyze the relationship between two variables using t-test analysis. There are several variables in the study, namely independent variables and dependent variables. The independent variable is the use of Paskibraka media for midwives. The dependent variable is the knowledge and

skills of midwives in detecting and managing the conditions of pathology and obstetric emergencies.

4. Result

Sample who involved in this research were midwives coordinator and midwives who provide MCH services in Community Health Center of Denpasar Selatan II, Denpasar Timur I, Pulo Armin and Merdeka in Bogor City. Based on data obtained on the characteristics of pregnant women in the City of Denpasar and the City of Bogor. Characteristics of midwives include length of work, education, age, number of trainings attended and employment status. The results obtained that the number of midwives involved in the study were 46 people, 32 of which were in the Denpasar City Community Health Center and 12 people in the Bogor City Community Health Center. The number of midwives in the intervention group was higher than in the control group (32 people / 69.57% vs 14 people / 30.43%). The highest level of midwife education was Diploma 3 Midwifery graduates (45 people (97.83%) and 1 Diploma 4 Midwifery graduate (2.17%). Table 1 illustrates the characteristics of midwives involved in the study.

Table 1: Characteristics of Midwives in Denpasar and Bogor City in 2019

Characteristics of midwife (n=46)	Frequency (f)	Percentage (%)	Cummulative (%)
Work places: (Community Health Center)			
Denpasar Timur I	22	47.83	47.83
Denpasar Selatan II	10	21.74	69.57
Pulo Armin	8	17.39	86.96
Merdeka	6	13.04	100
Jumlah	46		
Group:			
Intervention	32	69.57	69.57
Control	14	30.43	100
Jumlah	46		
	mean	SD	Minimal-maximal
Length of work (year)	10.17	7.15	2 – 30
Age of midwife (year)	32.41	8.33	25 – 55
Number of training	1.76	1.43	0 – 8

Different test results of knowledge scores of midwives in each group distinguished between intervention and control groups showed that there were significant differences in the knowledge score of midwives in the intervention group and control group ($p < 0.05$), but in the skills score there was no difference in posttest scores with pretest in the intervention group ($p > 0.05$). Table 2 below show about the different knowledge and skill score between intervention and control group.

Table 2: Different test results of knowledge and skill scores of midwives between intervention and control group

Variables/group	n	Mean	SD	95% CI	p value
Midwife knowledge :					
Intervention					
Posttest	32	12.72	2.34	11.87-13.56	0,00*
Pretest	32	11.94	0.28	11.36-12.52	
Difference	32	0.78	1.52	0.23-1.33	

Control					
<i>Posttest</i>	14	12.5	2.62	10.98-14.01	0,03*
<i>Pretest</i>	14	10.93	2.43	12.33-2.92	
<i>Difference</i>	14	1.57	2.34	0.22-2.92	
Midwife skill:					
Intervention					
<i>Posttest</i>	32	8.06	7.47	5.37-10.76	0,17
<i>Pretest</i>	32	9.78	7.74	6.99-12.57	
<i>Difference</i>	32	-1.72	6.94	-5	
Control					
<i>Posttest</i>	14	22.86	1.29	22.11-13.6	0,01*
<i>Pretest</i>	14	21.43	2.41	20.04-22.82	
<i>Difference</i>	14	1.43	1.83	0.37-2.48	

5. Discussion

Antenatal care (ANC) referred to is care provided by professionally trained health workers for pregnant women and adolescent girls in order to ensure the best health conditions for mothers and their babies during pregnancy. Components that must be given during ANC examination include: identifying risk factors, prevention and management of conditions that affect pregnancy, health education and health promotion (12). Communication skills are the main competence of a midwife in an effort to change the behavior of clients and families in a positive direction. A positive pregnancy experience is that pregnant women can maintain normal physical and sociocultural conditions, can maintain the health of pregnancy for mothers and their babies (including preventing and managing risks, morbidity and death), have an effective transition to childbirth and positive baby births, and can achieve Positive maternal roles include: the existence of maternal, competent and responsible self-esteem (12, 13).

Actions or actions taken in the community to reduce morbidity and mortality in mothers and children through home visits which are carried out twice during the pregnancy period can reduce the mortality rate of newborns in India. One of the efforts of community-based approach requires readiness and cooperation from various sectors in addition to the factor of health workers, training efforts for midwives also play an important role. Training for midwives uses appropriate strategies, material that is felt to be interesting and competent trainers (3).

Training using the Paskibraka method approach for midwives gave positive results, namely a significant increase in scores between pretest and posttest regarding efforts to detect early and emergency management of mothers and infants. The increase in scores in the intervention and control groups was due to internal and external factors. There are two basic approaches in the implementation of training programs, namely from the facilitator trainer / trainer and the trainee or learner. The ability of trainers contributes greatly in guiding and providing training resources or materials. The trainee or learner is interested in attending the training if he or she is aware that the training is useful and ready to learn, in addition to the material provided. The training atmosphere also plays an important role, namely a conducive training atmosphere is prepared, sharing and training participants have the freedom to learn at their own pace (14, 3).

6. Conclusion

The quality of service during the birth of a baby in a health facility reflects the availability of physical infrastructure, supply, human resources management related to the knowledge, skills and capacity of midwives capable of managing conditions of complications that can arise. Thus, midwives must be familiar with various physiological processes related to pregnancy and childbirth, the influence of socio-cultural processes and skills in providing life saving interventions (3). The response of the coordinating midwife and midwife implementing MCH services at the community health center regarding the Paskibraka method said that it was very interesting and could be applied to pregnant women because of its simple content. Midwives also felt they could increase their knowledge through case exercises in the form of Vignette cases, recalling theories about pathology and emergency care in accordance with the competence and authority of midwives.

7. Acknowledgement

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8. Conflict of Interest

There is no conflict of interest in the preparation of the result of this study.

9. Permission/Ethical Clearance and Funding

Ethical Clearance fro Ethical Commission of Polytechnique of Health Denpasar no. LB.02.03/EA/KEPK/0361/2019. Funding from Ministry of Health Head of the Agency for the Development and Empowerment Human Resources of Health in 2019.

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