

Original Research Article

Training effect to the knowledge and skills of midwives in maternity health services at primary health care

Mustamin^{1,2*}, Ridwan Amiruddin³, Sukri Palutturi⁴, Stang Abdul Rahman⁵, Risnah⁶

¹Doctor Program, Faculty of Public Health, ³Department of Epidemiology, Faculty of Public Health, ⁴Department of Administration Health Policy, Faculty of Public Health, ⁵Department of Biostatistics, Public Health Faculty, Hasanuddin University, Makassar, Indonesia

²District Health Office of Jeneponto, South Sulawesi, Indonesia

⁶Department of Nurse, Faculty of Medicine and Health Sciences, State Islamic University of Alauddin, Makassar, Indonesia

Received: 21 September 2018

Revised: 08 October 2018

Accepted: 09 October 2018

***Correspondence:**

Dr. Mustamin,

E-mail: mustamin.jp@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Maternal mortality is a benchmark for assessing the state of health services of pregnant women in a country. The purpose of this research is to know the effect of training on midwife to increase knowledge and ability of midwife in health service of pregnant woman.

Methods: This research used mix-method method with triangulation technique using questionnaire for quantitative stages and conducting contents analysis for qualitative stages. Statistical analysis use Wilcoxon test and paired T test.

Results: The result of statistic test shows that the knowledge about the service before the training has a mean of 3.25 and after training has a mean of 5.42. This shows an average increase. The result of T test shows $p=0.014$ ($p<0.05$) which means that there is difference of average knowledge about service before with after treatment. As for knowledge about Home visit before training have mean 7.87 and after training have mean of 8.00. The result of statistic test shows $p=0.044$ ($p<0.05$) indicating that there is a difference of average knowledge about midwives ability in service before with module test.

Conclusions: The training of Ammuntuli bija tianang na beja-beja (home visit) to increase the ability of midwife in pregnant woman health service has an effect on to change of knowledge and ability of midwife in pregnant woman's health service. There is a difference of knowledge and ability of midwife to health service of pregnant mother before and after training.

Keywords: Training, Service, Home visit

INTRODUCTION

The home visit program on maternal and child health is a method used to provide broad results of prevention interventions and early service to families in need of support. By engaging the family in a home visit during the prenatal or early pregnancy period, health workers strive to improve maternal services and child development by increasing parental knowledge, social

support, coping skills and solving maternal health problems, access to communities and health services.¹

Improvement of health services in pregnant women with home visit programs is able to know and identify various problems that lead to low health care of pregnant women is the health system factors that have not been arranged such as unavailability of transportation, low competence of health workers, culture, socio-economic conditions,

equality gender, lack of referrals and low quality of service by health personnel, access to services, inadequate facilities and the number and quality of health human resources.²⁻⁴

The World Health Organization (WHO) and UNICEF recommend that visit programs home is an effort that needs to be done by Public Health Worker in overcoming maternal and infant health issues and improve maternal and infant health service. One of the sub-Saharan African countries of Uganda, Uganda conducts home visits by health workers (community health cadres, also known as Village Health Teams) as a means of communicating health messages relevant to the health of mothers and newborns. In addition, Bangladesh, India and Pakistan have been conducting a home healthcare community healthcare program designed to bridge public health problems.⁵ The World Health Organization (WHO) in 2013 in collaboration with the International Confederation of Midwives (ICM) and the White Ribbon Alliance (WRA) The Women Deliver Conference holds meetings to determine whether midwife providers feel empowered, respected and safe. The research presented by the delegation of Nepal, Papua New Guinea and the next multi-country discussion highlighted the shortcomings in professional education, training, licensing and regulation, while also detailing the significant personal challenges that women provide midwifery care.⁶

Jenepono regency in the southern region which has 18 Health Center scattered in the work area of Jenepono district and reported to have a high maternal mortality from year to year starting from the year 2010 that is 103 per 100,000 births, in 2011 that is 46 per 100,000 births, 2012 is 170 per 100,000 births, 2013 is 84 per 100,000 births, 2014 is 253 per 100,000 births in 2015 is 193 per 100,000 births. Jenepono is ranked fourth after Bone 240/100,000 birth, Gowa 240/100,000 birth, Luwu 293/100,000 birth.⁷

Based on the background described, the home visit becomes one of the important keys to the success of health development including the improvement of maternal health services so that this paper aims to obtain a description of the ability of midwives in pregnant women's health services at six health centers in Jenepono district and how it can be improved.

METHODS

The type of research used observational with descriptive approach using mix method (qualitative and quantitative). The purposes of this research are to know the effect of training on the knowledge and abilities of midwives on the Amuntuli bija tianang na beja-beja (home visit) on maternity health services. This research was conducted at Jenepono District Health Office on January 10-11, 2018. The population in this study was all midwives who served in Binamu Health Center and Tarowang Health

Center of Jenepono Regency. Respondents as many as 8 people who obtained with Purposive sampling technique and it is also used as an informant. Data collection was done in two ways: primary data through questionnaires, in-depth interviews with informants, and observation. Secondary data in the form of Health Center profile, number of health officer and other data needed. Data that has been collected then tested the normality of data and presented in the form of frequency distribution table. Furthermore, because the knowledge data of maternal health services is not normally distributed then Wilcoxon test and knowledge of normal distributed home visit then paired t test. For qualitative data, analyzed by using content analysis and informant statement matrix done comparison with quantitative data that have been processed.

RESULTS

Respondent characteristics

Table 1 shows that the occupation of the informants is as many as 3 people (37.5%) non-permanent employee as 5 people (62.5%) the level of informant education completing at the Diploma level of 8 persons (100%). Age group of informants i.e. age 20-30 years as many as 3 people (32.5%), age 31-40 years as many as 4 people (50%) and for the age group 41-50 years as many as 1 person (17.5%). In addition, the working masses of informants 0-2 years 1 person (12.5%), 3-5 years 43 people (50%), 6-10 years 2 people (25%), 11 years and over 1 person (12, 5%).

Table 1: Analysis of respondent characteristics on module testing in Jenepono District 2018.

Characteristic	N	%
Employment of		
civil servant	3	37.5
non-permanent employee	5	62.5
Level of education		
Bachelor	0	0
Diploma	8	100
Health care school + midwife	0	0
Age (years)		
20-30	3	32.5
31-40	4	50
41-50	1	17.5
Working period (years)		
0-2	1	12.5
3-5	4	50
6-10	2	25
11 and more	1	12.5
Total	8	100

Knowledge of respondents

In this study measure the subject's knowledge then the researcher gives pretest before the training activities and

given the module when the training activities take place. After the training activity is done back posttest.

Table 2: Change of knowledge of pre and post training respondents in Jeneponto district 2018.

Knowledge	Pre		Post		P value
	Mean	SD	Mean	SD	
Services	3.25	0.707	5.37	0.744	0.014
Ability in service	7.50	0.534	8.00	0.00	0.046

Source: Primary data; Description: Wilcoxon Signed Rank Test and T Test

Table 2 shows that knowledge of service before training has a mean of 3.25 and after training has a mean of 5.37. This does not indicate an increase in the average. Result test T test show $p=0.014$ ($p>0.05$) which means that there is difference of average knowledge about service before with after treatment.

Ability in pre-service training has a mean of 7.50 and after training has an average of 8.00. This indicates an increase in average. The result of statistic test shows the value of $p=0.046$ ($p<0.05$) indicating that there is average difference of midwife's ability before with after treatment.

This research was carried out qualitatively, so to support the research was carried out post-training interviews. In general, new information was obtained and there was a change in participant's knowledge and ability in service after attending the training as according to the following quote:

"... Thank you, sir, for doing this training so we have new knowledge, that is, I already know how good service is, good midwives who have competencies. (HW)

"..... I am very grateful to you for giving this training because it added knowledge to me. Now I know the duty of a midwife in the village, not only serving when sick but how to prevent death. (BS)

"... Good, the explanation given was very directed. I got a lesson that really meant what service was like, how to be a good midwife. (LN)

"..... I am very grateful with my presence for increasing our knowledge about the importance of Amuntuli bija tianang na beja in in maternity health services.(RS)"

Evaluation of the training process that has taken place smoothly and is well valued by participants. As with several quotations as follows;

"... The training theme is very creative, innovative and useful. The presentation of the material is very interesting so it is not boring. Great service. Friendly speakers and

always give participants the opportunity to give feedback. (DE)

"..... We can find out the efforts in the service of pregnant women, if necessary all midwives are given this training." (FE)

"... The material is very good and easy to understand. We are required to find the cause of the problem and the solution." (NN)

DISCUSSION

These results indicate that a good understanding of maternal health services has been owned by the midwife. Service is a term commonly used in research, clinical practice, and health professional education. Home visits are not a new concept. In the literature on home visits, especially in health sciences it is clear that there are many benefits and challenges for conducting home visits. This skill can be transferred to many areas where it can know exactly the condition of pregnant mother and family circumstances.⁸

Efforts to improve maternal health services can be done in various ways. One of the strategies are training activities. Training was identified can influence knowledge and attitude of midwives but in some health services, training is still not maximally implemented.^{9,10} Knowledge, skills and motivations correlate with the performance of midwives. Meanwhile, the work time is not correlation with the midwives performance.¹¹

Many training has been carried out and has an effect on the knowledge of the participants of the activity. Among them are training programs for maternal services during pregnancy, childbirth and postpartum that provide changes in participant's knowledge after attending the training.¹² Although training still needs to be done better so that the training participant's knowledge is even better after the pre and post intervention tests.¹³

Health education is one of the efforts in increasing a person's knowledge and abilities with the aim to remember real facts or conditions. By encouraging self-direction and being active in providing new information or ideas.¹⁴

Health education is very important to support other health programs. Education is a long-term 'behavioral investment'. This means that new health education can be seen several years later. In a short time (immediate impact), health education only produce changes or increase knowledge of the community. Health knowledge will influence behavior as an intermediate impact of health education. Furthermore, it will affect the improvement of public health indicators as outcomes health education. Health education is not just a lesson in the classroom, but it is a collection of experiences

anywhere and anytime as long as the client can influence knowledge of attitudes and habits.¹⁴

Nyswander states that health education is a dynamic process of behavior change not a process of transferring material from one person to another and not a set of procedures. This can be seen from the definition put forward, namely: Health education is a process of change in a person associated with the achievement of health goals of individuals and communities. From these definitions indicate that health education is a process of behavior change dynamically with the aim of changing or influencing human behavior, which includes knowledge, attitudes, or practices associated with the goal of a healthy life, both individuals, groups and communities, and is a component of the health program.^{14,15} Something that is learned will form knowledge, often that knowledge is forgotten. There are several reasons a person who has gained experience but it is hard to remember, according to Purwanto (1990) someone tends to forget because it depends on something that is observed, the situation and process of observation takes place and time. David Kolb, cited Ministry of Health Indonesia (2001), Knowledge as a result of the learning process is greatly influenced by the time since the exposure is obtained.

The concept of health education is the educational concept applied in the health sector. The basic concept of education is a meaningful learning process in education that occurs a process of growth, development, or change towards a more grown, better, more mature in the individual, group/ community. The concept of health education is also a learning process for individuals, groups or communities from not knowing about health values to being aware, from being unable to overcome health problems to be able to overcome health problems. According to Craven and Hirnle, health education is the addition of a person's knowledge and abilities through learning practice techniques or instructions, with the aim of remembering facts or real conditions, by encouraging self-direction, actively providing new information or ideas.¹⁴

There are several factors that affect knowledge, namely:

- Level of education, the person who have high education level will be easier to accept new things so that it will be easier to solve these new things.
- Information, someone who has a much better source of information will provide clear knowledge.
- Cultural influence on a person's level of knowledge, as new information will be filtered, in accordance with the existing culture and religion.
- Experience relates to age and individual education, meaning, high education, experience will be wide as age grows older.
- Socio-Economic, the level of someone to meet the needs of life adjusted to the existing income, that requires knowledge should be used as much as possible, as well as in seeking assistance to existing

health facilities, they adjust family income. Another factor that is also supportive is information.

The results are supported by the theory proposed by Atkinson and Shiifrin in Satrock (2008) states that the longer information is maintained in short-term memory with the help of repetition, the more likely it is to enter long-term memory, so that it is relatively more permanent. Knowledge will be stored for a long time in memory if repetition is done by recalling when needed.

This research still has various limitations, namely the number of informants who also as respondents have not represented all midwives who work in the Puskesmas of the research location, so the results have not been able to be represented as results at the level of the Health Center in Jeneponto district. Moreover, the implementation of the Health Operational Assistance Program in Jeneponto district has gone well.¹⁶

CONCLUSION

The training of Ammuntuli Bija Tianang Na Beja-beja was increase knowledge and skill of midwife in maternity health service. There is a difference of knowledge and ability among midwife in Maternity helath service before and after training.

Recommendations

Training by using the module of Ammuntuli bija tianang na beja-beja is recommended to conduct in other Health Center locations and this module can a reference for midwives to improve health services in Jeneponto Regency. Next research is recommended to see the social and cultural aspects that affect the health care of pregnant woman.

ACKNOWLEDGEMENTS

We would like to thank District Health Office of Jeneponto, Binamu Health Center, Tarawang Health Center and the Respondents as well as all parties who have helped carry out this research.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Nievar MA, Van Egeren LA, Pollard S. A meta-analysis of home visiting programs: Moderators of improvements in maternal behavior. *Infant Mental Health Journal*. 2010;31(5):499-520.
2. Kaba M, Bulto T, Tafesse Z, Lingerh W, Ali I. Sociocultural determinants of home delivery in Ethiopia: a qualitative study. *Int J Women's Health*. 2016;8:93-102.

3. Ayiasi RM, Batwala V, Criel B, Orach CG. Effect of Village Health Team Home Visits and Mobile Phone Consultations on Maternal and Newborn Care Practices in Masindi and Kiryandongo, Uganda: A Community-Intervention Trial. *PLoS One*. 2016;11(4):e0153051.
4. Denise Kendrick RE, Michael Hewitt, Michael Dewey, Mitch Blair, Jane Robinson, Debbie Williams, Kathy Brummell. Does home visiting improve parenting and the quality of the home environment? A systematic review and meta analysis. *group.bmj.com*. 2016;82:445-51.
5. Mangwi Ayiasi R, Kolsteren P, Batwala V, Criel B, Orach CG. Effect of Village Health Team Home Visits and Mobile Phone Consultations on Maternal and Newborn Care Practices in Masindi and Kiryandongo, Uganda: A Community-Intervention Trial. *PLoS One*. 2016;11(4):e0153051.
6. Alex Filby FM, Portela A. What Prevents Quality Midwifery Care? A Systematic Mapping of Barriers in Low and Middle Income Countries from the Provider Perspective. *Plos One*. 2016;11(5).
7. Provincial Health Office of South Sulawesi. Provincial Health Office Profile of South Sulawesi 2014. 2015.
8. Borst J. Interprofessional collaboration: an introduction. *Tartalom/Table of contents*; 2011: 32.
9. Andi Tenri Sanna Ilma AH, Amiruddin R. Job Satisfaction of Icerin The Instalation In Patient Faisal Moeslem Hospital Makassar *Jurnal AKK*. 2012;1:1-55.
10. Sukmawati S, Bustan N. The effect of Education Pregnancy Knowledge And Attitude About Breastfeeding Initiation In Puskesmas Working Region Parangloe Distrit Gowa. *JKMM*. 2018;1:7-13.
11. Sukri Palutturi N, Mandak N. Determinan Of Midwives At Public Health Centre At 2006. *JMMPK*. 2006;10:195-200.
12. Seif NY, Aziz MA. Effect of breast self-examination training program on knowledge, attitude and practice of a group of working women. *J Egypt Natl Canc Inst*. 2000;12(2):105-15.
13. Ellis JJ, McCreadie SR, McGregor M, Streetman DS. Effect of pharmacy practice residency training on residents' knowledge of and interest in clinical research. *AJHSP*. 2007;64(19).
14. Suliha U. Health Education in Nursing Profesion. *EGC*; 2002;2:89-92.
15. Notoatmodjo. *Publich Healt, Science and Art*. Rineka Cipta. 2007.
16. Parawansa MIMSP, Abadi Y. Operatonal Support Health Evaluation in the District Jeneponto. 2012.

Cite this article as: Mustamin, Amiruddin R, Palutturi S, Rahman SA, Risnah. Training effect to the knowledge and skills of midwives in maternity health services at primary health care. *Int J Community Med Public Health* 2018;5:4651-5.