

**Yuliana**

Student of Post-graduate Biology Education Study Programme Unsyiah, Banda Aceh, Aceh

**Samingan**

Lecturer of Graduate Program at Syiah Kuala University

**Mudatsir**

Lecturer of Graduate Program at Syiah Kuala University

Correspondensi: yulianaanwar48@gmail.com

**THE IMPROVEMENT OF PREGNANCY CARE ABILITY IN FAMILY THROUGH DIRECT LEARNING WITH MODELING IN ACADEMY OF MIDWIFERY DARUSSALAM LHOKSEUMAWE**

**ABSTRACT:** This research purposes to know the improvement of pregnancy care ability in family which is taught with direct learning model by modeling in Academy of Midwifery Darussalam Lhokseumawe. The method of this research was experiment by using "Random Pre-tes, Post-tes Control Group". Collecting data was conducted by observing the ability of student. Analyzing data was conducted by percentage, N-gain and T-test. Result of the research can be concluded that there is the significant improvement between control and treatment class.

**Keywords:** direct learning, modelling, pregnancy care ability in family.

**PENINGKATAN KEMAMPUAN ASUHAN KEHAMILAN DALAM KELUARGA MELALUI PEMBELAJARAN LANGSUNG DENGAN PEMODELANDI AKADEMI KEBIDANAN DARUSSALAM LHOKSEUMAWE**

**ABSTRAK:** Penelitian ini bertujuan untuk mengetahui peningkatan kemampuan langsung dengan pemodelan di Akademi Kebidanan Darussalam Lhokseumawe. Metode penelitian adalah eksperimen dengan rancangan "Random Pre-tes, Post-tes Control Group". Pengumpulan data dilakukan dengan observasi kemampuan mahasiswa. Analisa data dilakukan dengan persentase, N-gain dan uji-t. Hasil penelitian dapat disimpulkan bahwa terdapat peningkatan yang signifikan antara kelas perlakuan dan kontrol.

**Kata kunci:** pembelajaran langsung, pemodelan, kemampuan asuhan kehamilan dalam keluarga.

**INTRODUCTION**

The change of health service focus and curriculum of midwifery education to be better is the effort of various agents in order to reduce the number of mother and baby death which is high in Aceh. It shows that the number of mother death (AKI) reaches 307 per 100,000 births and the number of baby death (AKB) reaches 26 per 1000 births (Data of Department of Health Aceh Province in 2011). The number of death is the indicator of the degree of health that there is the problem in the health of mother and baby, so that, it needs the role of the related agents to reduce the risks which influence that health condition.

The education of pregnancy care in family has the important role to produce the good quality student of midwifery to reduce the risk of mother and baby death which is caused by complication of pregnancy and pregnant women's behavior. The student is capable to serve by using complication early detection, early promotion about the disease of pregnancy as well as promotion of the good behavior may increase the

degree of pregnant mother's health. it means to get well ability requires the creativity of lecturers and students, so that the activity of pregnancy care in family can be observed and demonstrated well.

The result of observation in private midwife clinic (BPS) and data from Academy of midwifery Darussalam in Lhokseumawe year 2013 shows that the ability of student in observing and serving pregnancy care is low. It can be viewed from the ability of student: 50% of the student did those activities in the low level ability, in the other side 40% of them reach enough level and only 10% have good ability.

According to the data above, the problem of the low ability of student happened because of several causes, those are (1) direct learning by using cooperative learning approach does not run maximally, (2) knowledge and basic ability does not support the learning yet, (3) Observation of student's activity moderately not optimal, and (4) and the lack of student's practice performance. Those cause the effort of government in reducing the number of mother death (AKI) and the number of baby death is far from what

we hope. Therefore, it needs to develop the learning with modeling as well as to maximize knowledge and basic skill for the student of midwifery. Besides, it needs the observation activity moderately in order to motivate and improve the exercise performance of pregnancy care in family.

Modeling shows the example of pregnancy care exercise activity in family while the student directly observe model's behavior (Kardi, 2000). Direct learning by modeling is the learning activity which is appropriate with exercise procedure, and it is able to improve the ability of pregnancy care in family by using the support of model as the motivator in exercise activity, the model shows the movement related to real life of pregnant woman, so that the student gets the complex description for maintaining interest to do exercise as well as becoming more perfect to solve the low of pregnancy care in family problem and reduce the risk of mother and baby death.

The previous researches related to the effort in improving the ability of the student were conducted by Leblanc, L. A., (2003); Nikopaulus, C. K, and Keenan, M., (2004); Murphy, J.J and Davis, M. W., (2005),

however, the research about the effort in improving the pregnancy care ability in family by using modeling is very, therefore, the researcher is interested in conducting the research intend to improving student ability in Midwifery Academy Darussalam.

## METHOD

This research was conducted by using experiment research method by designing Pretest-posttest Control Group Design, (Francel and Wallen, 2007). Radom sampling technique is used to take the sample and to determine the control and treatment group. Collecting data was conducted by observing the skill of the student. Data was analyzed by using percentage, N-Gain and T-test.

## RESULT AND DISCUSSION

The tabulation result of student ability in conducting pregnancy care activity in family improves in both classes, detail of student ability improvement in all aspects of pregnancy care in family is showed in Table 1.

Table 1. Percentage of Student Score Based on Pregnancy Care Aspect in Family in Control and Treatment Class.

| No | Aspect                                | Class     |      |            |         |      |            | Range |
|----|---------------------------------------|-----------|------|------------|---------|------|------------|-------|
|    |                                       | Treatment |      |            | Control |      |            |       |
|    |                                       | First     | Last | Increasing | First   | Last | Increasing |       |
| 1  | First preparation                     | 32        | 96   | 64         | 30      | 87   | 57         | 7     |
| 2  | Anamnesis                             | 12        | 95   | 83         | 12      | 83   | 71         | 12    |
| 3  | Leopold                               | 26        | 85   | 59         | 26      | 75   | 49         | 10    |
| 4  | Mechanical body education             | 14        | 90   | 76         | 14      | 73   | 59         | 17    |
| 5  | Education of nutrient and iron tablet | 11        | 74   | 63         | 11      | 61   | 50         | 13    |
| 6  | Education of the dangers of pregnancy | 3         | 42   | 39         | 3       | 38   | 35         | 4     |
| 7  | Care technique                        | 13        | 80   | 67         | 12      | 69   | 57         | 10    |

According to the tabulation, first score and last score from both classes improve in all aspects of pregnancy care in family, the highest improvement of ability occurs in anamnesis aspect 83% in treatment class and 71% in control class. In the other side, the most different of last ability between control and treatment class occurs in mechanical body education

aspect is 17%. It is because of direct learning by using modeling, so that the student is able to manage the exercise well.

The result of first student score analysis shows that there is no difference between control and treatment class regarding to the ability of the pregnancy care in family, it shows in Table 2.

Table 2. Average Difference Test of Student First Ability in Pregnancy Care in Family Material From Control and Treatment Class.

|         | Class     |         | Normality           |                     | Homogeneity (Ekp-Ktr)    | Singnificance   |
|---------|-----------|---------|---------------------|---------------------|--------------------------|---|
|         | Treatment | Control | Treatment           | Control             |                          |   |
| Pretest | 15,83     | 16,26   | Normal<br>Sig:0,849 | Normal<br>Sig:0,936 | Homogeneous<br>Sig:0,994 | Unsignificat<br>$T_{\text{high}}=0,282 < 1,672$<br>Sig:0,779 > 0,05 |

The analysis result indicates that student in treatment group and control group have the ability of pregnancy care in family homogeneous (similiar). In the other side, the analysis of the last ability of student

which was measured after conducting the learning about pregnancy care in family shows the difference between both classes from analysis of Table 3.

Table 3. Average Difference Test of Student Last Ability in Pregnancy Care in Family Material From Control and Treatment Class.

|         | Class     |         | Normality           |                     | Homogeneity (Ekp-Ktr)     | Singnificance   |
|---------|-----------|---------|---------------------|---------------------|---------------------------|---|
|         | Treatment | Control | Treatment           | Control             |                           |   |
| Postest | 80        | 65,8    | Normal<br>Sig:0,239 | Normal<br>Sig:0,722 | Homogeneous<br>Sig: 0,482 | Unsignificat<br>$T_{\text{high}}= 656 > 1,672$<br>Sig:0,00 < 0,05 |

The analysis result shows there is the significant difference between control and treatment class regarding to ability of student, the score is sig;  $0,000 < 0,05$ . It is because direct learning by using modeling can improve the study result of the student, because the modeling helps student to remember modeling when practicing pregnancy care in family which is in accordance with the theory, the theory mentioned that the visual description or modeling and illustration may give the direct experience to the student about the material and certain ability, so, that is saved well in long term memory (Hiebert *et al.*,: Sausa: Slavin 1997). So that student easily perform this pregnancy care in family activity (Slavin 1997).

It means there is the improvement in all aspect of pregnancy care in family both in control and treatment class, in average, they are in dependent category and capable to perform this activity because of direct learning model, especially because of the effect of modeling in treatment class, it is in accordance with

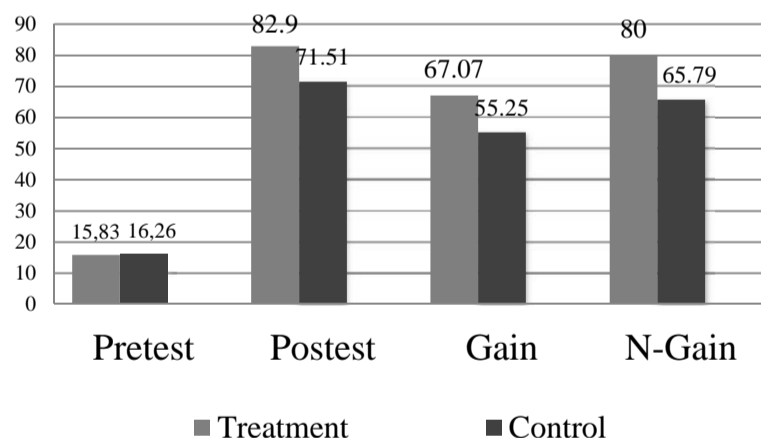
Margareta's study (2012) about the effectiveness of video self modeling toward student dependent skill. In the other side, there is 7% of student in control class stands on corrective category in aspect of education of pregnancy dangers.

Student showed the practicing activity of pregnancy care in family well and independently, it is significantly improve after interfering by using modeling in both class. The improvement of student ability was gained by calculating the range between first score and last score (gain). significance test about the improvement of ability between control and treatment was conducted by testing the average of normalized gain score. N-Gain between both groups have normal distribution. Homogeneity test of two variant toward N-Gain score of the student in control and treatment class shows that the data in both classes is homogeneous. T-test of the last ability of student in order to view the difference between both classes is conducted in table 4.

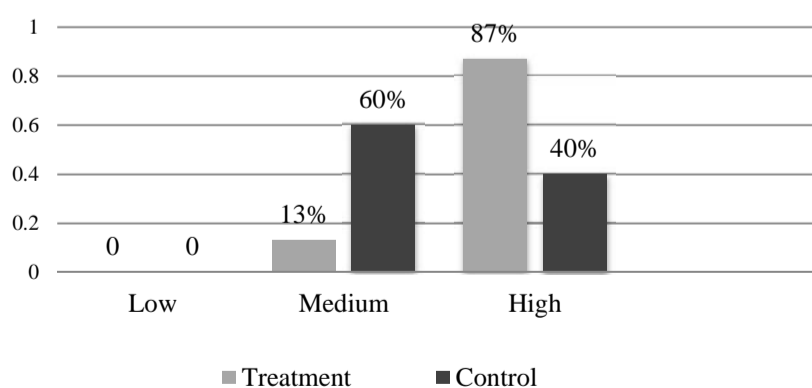
Table 4. Average Difference Test of Student N-Gain in Control and Treatment Class.

| N-Gain | Class     |         | Normality           |                     | Homogeneity               | Significance  |
|--------|-----------|---------|---------------------|---------------------|---------------------------|---|
|        | Treatment | Control | Treatment           | Control             |                           |   |
|        | 80,00     | 65,79   | Normal<br>Sig:0,492 | Normal<br>Sig:0,498 | Homogeneous<br>Sig: 0,084 | 1,672<br>Significant<br>$t_{high}=0,282 < 1,672$<br>Sig:0,00 > 0,05 |

The analysis result shows that there is the significant difference between control and treatment class by confidence level is 0,005. It is also showed in ability test data between control and treatment class regarding to the material about pregnancy care, and it is converted through figure 1.



Gambar 1. The Difference of Pregnancy Care in Family Ability in Treatment and Control Class.



Gambar 2. The Comparison of The Ability of Pregnancy Care in Family Between Control and Treatment Class.

The diagram above shows the ability of pregnancy care in family which is converted into N-gain categories, are low category  $< 0,3$ , medium category  $> 0,3-0,7$  and high category  $> 0,7$  can be viewed in figure 2.

There is student in both class stand in low category 0% regarding to the ability of pregnancy care in family according to N-Gain category, in the medium category, there is the significant difference between both classes, control dominantly reach 47%, the last category is high where the treatment class reach 87%. The difference of student ability according to N-gain category shows the ability of the students in treatment class stand on high category and students in control class stand on medium category. It proves that the successful of community examination regarding to conduct pregnancy care in family by modeling can improve the ability because of the confidence of the student in doing the practicing activity. It is in accordance with Bandura's theory, that mastery enactive give the authentic evidence about the student ability, with the successful experience of modeling, it can improve the confidence of the student in doing their tasks.

According to the analysis the first and last score from both class shows the improvement in all aspect of pregnancy care in family, the highest improvement of ability occurs in anamnesis aspect 83% in treatment class and 71% in control class. In the other hand, the highest difference of last student ability in control and treatment class occurs in mechanical body education is 17%. It is because of direct learning by modeling, so that, the student may manage their practice time well.

The effort in improving the ability of pregnancy care in family through managing learning time as well as practicing in all aspect can improve student's

achievement, it is supported by Dwiningsih's research (2012) that modeling can fix the ability of learning management so that shows the average of student skill competences with good criteria. Direct learning by using modeling is conducted with two learning procedural meeting which is short and continued by practicing activity, so it can improve student's achievement. In contrary, Darmadi's research (2009) shows that modeling can improve the student's learning achievement by three learning cycles.

The analysis result of student's achievement through T-test shows the significant difference between two groups, which is score  $t_{hitung} 7,090 > t_{tabel} 1,672$  by the significant score is  $0,00 < 0,05$ . Hypothesis is there is the difference of student's ability which learns by using direct learning model with modeling in treatment class and direct learning without modeling in control class regarding to pregnancy care in family material is accepted because it is really different, it is different caused by learning using modeling which influences positively toward performance of student exercise. It is supported by Larson's theory (1998) that modeling gives positive effect toward performance in various task which related to the work, health behavior, counseling behavior, and academic learning result. Another study which related to modeling mentions that modeling supports student observes individual's behavior who is in similar profession with her, so that it improves the level of student's confidence to practice pregnancy care in family activity and it is easy to reach the higher accuracy level (Goh, 2012).

The difference ability regarding to pregnancy care in family is significant in treatment and control class because of learning by using modeling which is from student, so that it affects the exercise activity. It is supported by theory that modeling which is from the student greater affects student's target behavior (Bandura, 1997).

## REFERENCE

- Bandura, A. 1997. *Self-Efficacy: the Exercise of Control*. New York: Freeman.
- Darmadi. K. L. 2009. Penerapan Pendekat Kontektual dengan Pemodelan Untuk Meningkatkan Prestasi Belajar Matematika Pada Siswa Kelas LII SMPN1 Jiwon Kabupaten Madiun. *Jurnal Pendidikan MIPA*. 36: 3-7
- Dwiningsih, K. dan Syarif. H. S., 2012. Pemodelan dalam VCD Inguiri untuk Memperbaiki Keterampilan Mengelola Pembelajaran Mahasiswa Pendidikan Kimia Angkatan 2008 Pada Kegiatan Simulasi MKPBM III. *Seminar Nasional Kimia Unesa Surabaya*. Oktober 2012
- Frankel, J.R & Wallen N.E. 2007. *How to Dessagn Evaluated Research in Education*. Singapura: McGraw-Hill International Editions.
- Goh, Ailsa E & Bambara, Linda, M. 2012. Video Self-Modeling. *Journal of Social Work Education*. 48(3): 553-576.
- Kardi, Soeparman dan Muhamad Nur. 2000. *Pembelajaran Langsung. Pusat Sain dan Matematika Sekolah PPS UNESA*. Surabaya: University Press.
- Larson, L. M., & Daniels, J. A. 1998. *Review of The Counseling Self-Efficacy Literature*. *The Counseling Psychologis*. 26: 179-218.
- Leblanc, L. A. 2003. Using Video Modeling and Reinforcement to Teach Perspective Taking Skills to Children with Autism. *Journal of Applied Behavior Analysis*. 36: 253-257.
- Lestari. T. P, Susilaningih, R. Sri. 2008. Efektifitas Metode Pembelajaran Bide Side Teaching Terhadap Kemampuan Psikomotor Mahasiswa DIII Kebidanan Bakti Husada, *Jurnal Kesehatan*. 7:58-65.
- Margareta, S.E.P.M. 2012. Efektifitas Video Self Modelling Terhadap Kemampuan Menggosok

The ability of pregnancy care is taught by direct learning without modeling can also improve the student's ability in control class, because it gives student the real experience when doing the exercise activity. It is in accordance with Lestari's study (2008) that the direct learning through service beside pregnant mother's bed (*bed side teaching*) regarding to pregnancy care material in clinic community is very effective for improving student psychomotoric ability. However, the higher improvement happens in treatment class. It is proven by testing the hypothesis that there is significant improvement between both treatment.

The improvement of student ability by using modeling is very helpful student when doing the pregnancy care in family tasks, because the demonstrated activity through short video may improve independence in doing the activity in treatment class. It is supported by Shipley's study (2002) that modeling can help student's functional living skill after watching the video which is demonstrated in that activity. It is also in accordance with Margareta's study (2012) that modeling improves student's independency. The difference learning result between treatment and control class is caused by using modeling in learning pregnancy care in family skill can be utilized by the student to practice the skill at home and maintain their interest to practice until resulting the better ability and independence when it is shown in the final and community practice.

## CONCLUSION

Result of the research proves that the improvement of pregnancy care in family ability in midwifery student through implementation of direct learning model with modeling which is higher than direct learning without modeling. To improve student's ability in doing pregnancy care in family through modeling implementation of modeling can motivate skill practice from correction phase to independence.

- Gigi pada Anak dengan Autisem Spectrum Disorders. *Tesis FIK UI*.
- Murphy, J.J & Davis, M. W, 2005. Video Exeptions: an Empirical Case Study of Self-Modeling with A Developmental Disabled Child. *Journal of Systematic Therapies*.24: 66-79.
- Nikopaulus, C. K., & Keenan, M, 2004. Effeccts of Video Modelling on Social Initiations by Children with Autism. *Journal of Applied Behavior Analysis*. 37: 93-96.
- Shiple-Benamou, R., Lutzker, J. R., & Taubman, M. (2002). Teaching Daily Living Skills to Children with Autism Through Instructional Video Modeling. *Journal of Positive Behavioral Interventions*. 4:165-175.
- Slavin, R. 1997. *Educational Psychology Theory and Practice*. USA: Allyn and Bacon.