

The Retraining Effect and Retention of CPR Skill in Medical Students

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Purpose: This paper compares the CPR (cardiopulmonary resuscitation) skills of medical students with conventional training with those students without any previous training. We tried to evaluate if previous had any impact on CPR skills retention.

Methods: Incoming 1st year medical students were provided conventional CPR instruction. At 18-23 months, we randomly retrained the subjects. Then we tested CPR performance skill at 26 months. Out of 151 subjects who received their first CPR instruction, 135 were available for testing at 26 months. Retraining group and control group was 55 and 80 respectively.

Results: Overall performance was superior in the retrained group. The median score for retrained group and control group was 18(17-19) and 15(10-16). (p<0.001)

For the retrained group, the percentage of adequate rescue breathing, reassessment, responsiveness assessment and compression were 100%, 98.2%, 96.4%, 92.7% respectively.

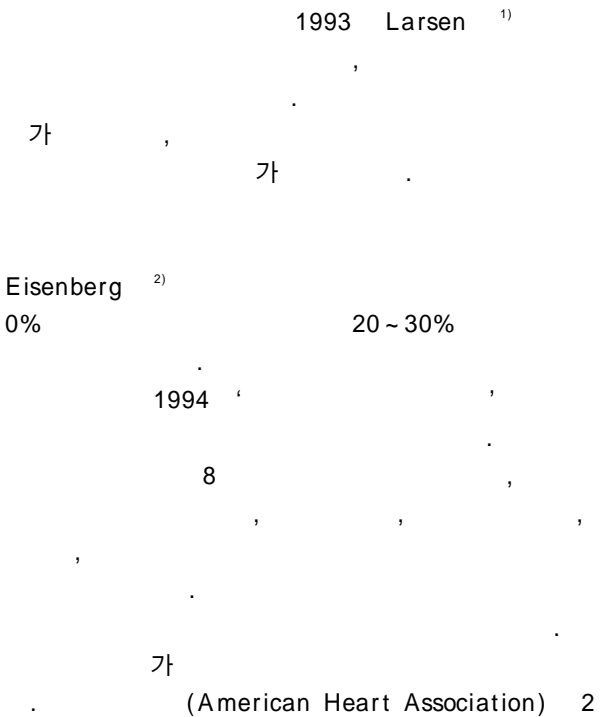
For the control group, the percentage of adequate rescue breathing, adequate breathing, responsiveness assessment and compression were 91.2%, 73.8%, 68.8%, 60.0%.

Conclusion: The CPR skills seems to be retained for 8 months. Without any retraining the CPR skills could not be retained after 26 months.

Therefore, retraining of CPR is a necessity, but more study is required in order to find out the interval of retraining.

Key Words: Cardiopulmonary resuscitation, Education, Training

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2004

4 () 1 , () 0
4 가 20 가

90%(18)

26 가 가

3.

1. 18 23

1 151 (가 가)

57

18 23

26 가

가 4 test

Mann-Whitney Test, ANOVA test
SPSS 11.5

135 151 55 18 16 23

가 (Fig. 1).

2. 가

151 30

9 (100%), 가(98.2%), (96.4%), (92.7%)
(91.2%), (73.8%), (68.8%), (60%)
(43.6%), (69.1%), (70.9%), (3.8%), (18.8%), (47.5%) (Table 1).
가 (4) 18 (17~19), 15 (10~16)
가 (p<0.001)(Fig. 2).

Resusci Anne Torso (Laerdal, Norway)
Skillmeter Resusci Anne (Laerdal, Norway)
BLS (basic life support)
Skillmeter

18 23
6

18 23 가

3 가 (17~19), 5 18.5 (17~20), 6 18.5 (16.5~19), 7 18 (17~19.25), 8 17 (17~18) (Fig. 3).

4 가 가 (p=0.865).
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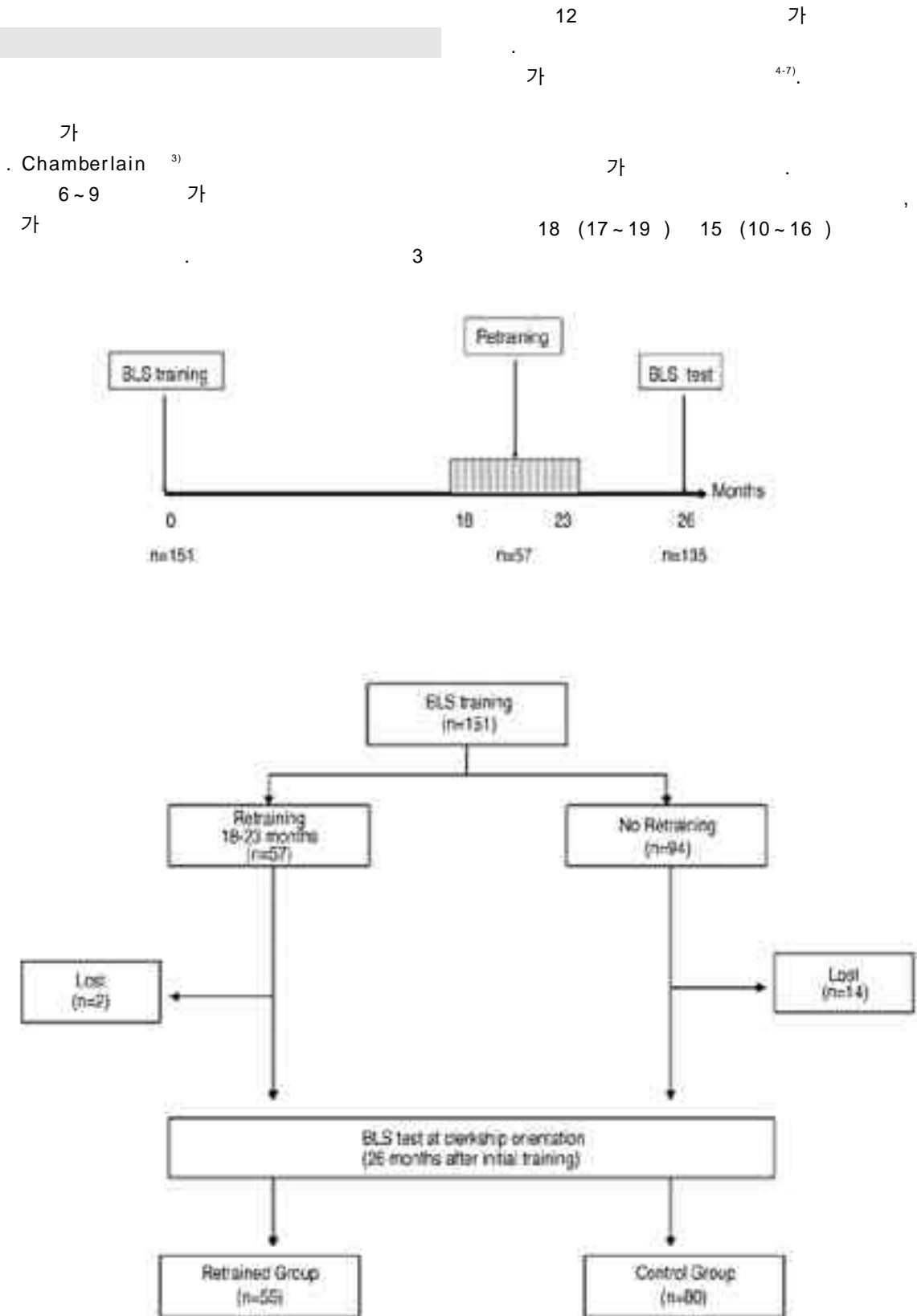


Fig. 1. Study flow. 1st year medical students were provided conventional CPR instruction. At 18-23 months, we randomly retrained the subjects. Then we tested CPR performance skill at 26 months. Out of 151 subjects who received their first CPR instruction, 135 were available for testing at 26 months. Retraining group and control group was 55 and 80 respectively.

가 3, 5, 6, 7, 8
 가 8 가
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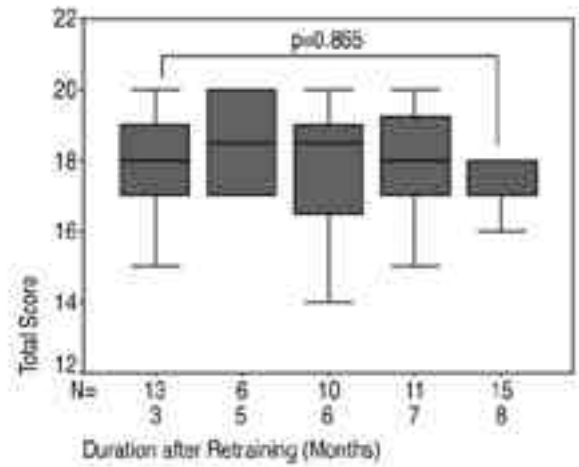
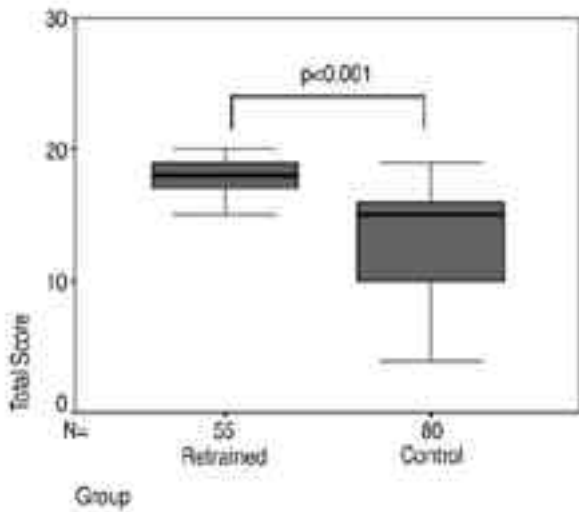


Fig. 2. The BLS score at 26 months. This shows that the median score for retrained group and control group was 18(17~19) and 15(10~16) respectively. There was a significant difference between retrained group and control group ($p < 0.001$).

Fig. 3. The BLS score elapsed months after retraining. There was no significant difference in the BLS score elapsed months after training ($p = 0.865$).

Table 1. The performance of BLS* component[†]

BLS components	Competent (%)		p-value
	Retrained (n=55)	Control (n=80)	
Assess responsiveness	53 (96.4)	55 (68.8)	0.000
Activate the EMS system	46 (83.6)	38 (47.5)	0.000
Airway	39 (70.9)	40 (50.0)	0.015
Check for breathing	38 (69.1)	15 (18.8)	0.000
Provide rescue breathing	55 (100.0)	73 (91.2)	0.024
Check for signs of circulation	24 (43.6)	3 (3.8)	0.000
Chest compression	41 (92.7)	48 (60.0)	0.000
Breathing	53 (96.4)	59 (73.8)	0.001
Reassessment	54 (98.2)	47 (58.8)	0.000

* BLS: Basic life support

[†] $p < 0.001$

. Berden ¹⁰⁾ 1

. Kang ¹¹⁾ 2

Choi ¹²⁾ 2

4

. Baek¹³⁾

1

8

3 26

8

가

26

. Smith ¹⁴⁾

50

5

feedback Resusci Anne Torso
(Laerdal, Norway) Skillmeter Resusci Anne
(Laerdal, Norway) . Wik ¹⁵⁾

VAM (voice advisory manikin)

. 24

, VAM

3

. Wik ¹⁶⁾ 176

가

가

가

18, 20, 21, 22, 23

26

가

26

가

9

12

가가

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