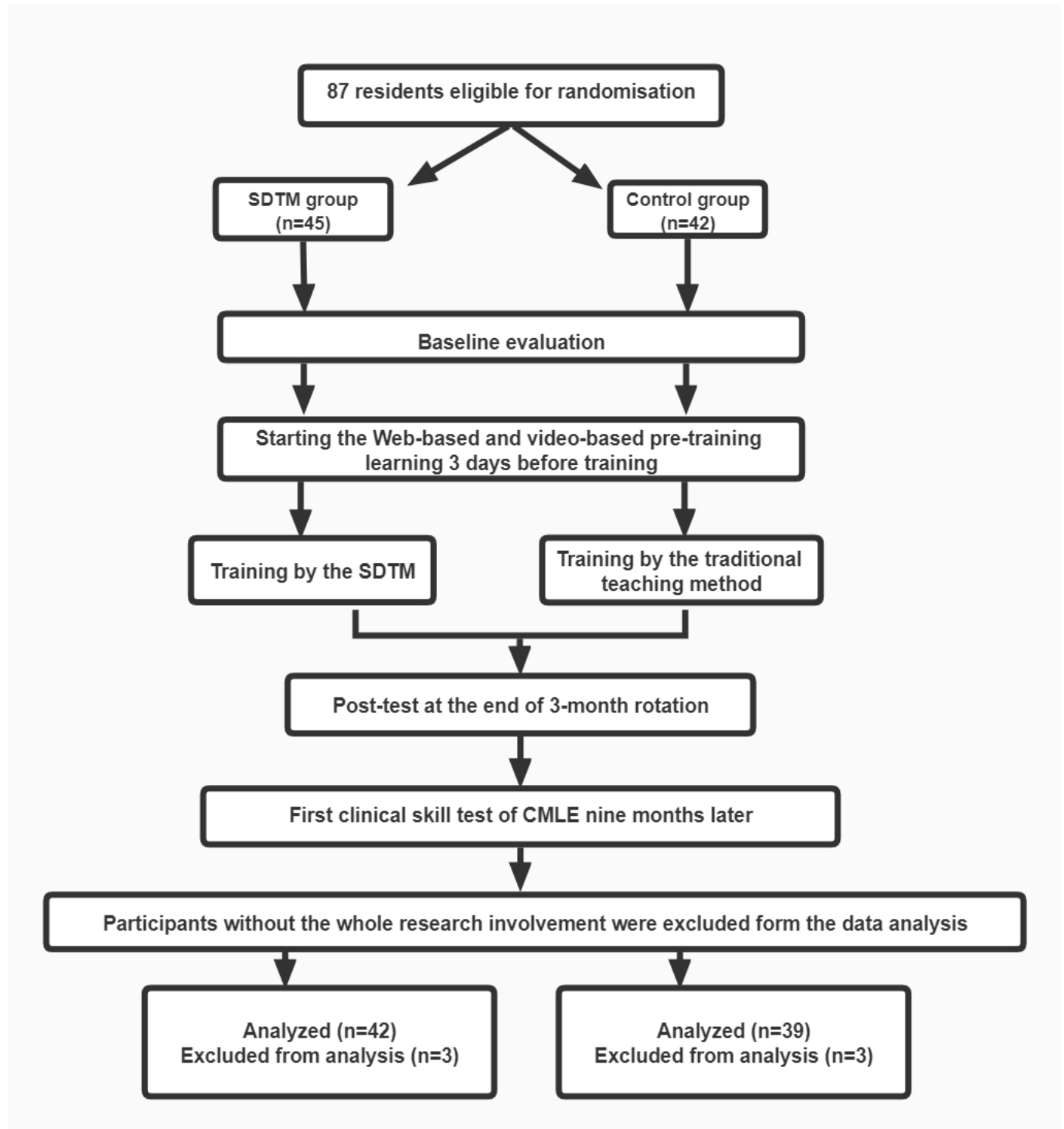


Flow chart



Standard operation procedure	Difference points
Cardiopulmonary resuscitation	
Correct compression depth (1.5–2 inches) and fingers off the chest	Compression depth (approximately 0.5 inches) and fingers on the chest
Remove secretions and foreign bodies from the mouth and nose and keep the airway opening (head tilt and chin lift)	Forget to remove secretions and foreign bodies of the airway and the chin is not lifted before the artificial respiration
Judge the resuscitation effect after five cycles	Judge the resuscitation effect after six cycles
Dressing change	
Remove the inner dressing with a tweezers	Remove the outer and inner dressing with the hand
The second disinfection scope should be narrower than that of the first	The second disinfection scope is equal to that of the first
A pair of tweezers contacts the incision, and the other is used to transfer the cleaning items of the dressing bowl.	Two pairs of tweezers are mixed-use
Wearing and taking off the operating gown and sterile gloves	
Extend the hands forward (not over the shoulders) during the dressing process	Extend the hands upward slightly (over the shoulders) during the dressing process
The gloved hand shall not touch the inner surface of the other glove	The thumb of the gloved hand touches the inner surface of the other glove
With the help of an assistant, take off the operating gown first and then the gloves	Take off the gloves first by oneself and then the operating gown with the help of an assistant
Disinfection and surgical drapes placement (neck)	
Disinfection range: Up to the lower lip, down to the nipple line, both sides to the anterior edge of the trapezius muscle	Disinfection range: Up to the submental plane, down to the clavicular pane, both sides to the anterior edge of the sternocleidomastoid
Keep the tip of the sterilizing forceps lower than the holding end	The tip of the sterilizing forceps is occasionally over the handheld end
Place four towels in the correct order: the lower part, opposite side, head side and trainee side	Place four towels in the wrong order: opposite side, lower part, trainee side and head side
Medical history-taking*	
Remember to ask about the predisposing factors	Forget to ask about the predisposing factors
Ask about the negative symptoms in detail	Ignore some negative symptoms inquiry
Good professional quality	Poor professional quality

Table 1: Difference points

*: Since the DPs of medical history-taking are not aimed at a certain disease, the DPs are for reference only as examples.

Table 2: The demographic and baseline data

	Control group	SDTM group	Statistics	P-value	d*
Total number of residents	39	42			
Age (years, mean \pm SD)	23.77 \pm 1.062	23.81 \pm 1.041	T = 0.172	0.864	0.04
Sex (male/female)	19/20	22/20	χ^2 =0.109	0.742	0.07
Baseline score (max 100 points, mean \pm SD)	87.38 \pm 3.368	87.26 \pm 3.147	T = 0.169	0.866	0.04

*: Cohen's effect size (d)

Table 3: Objective parameter comparison of the short-term teaching effect

	Control group	SDTM group	Statistics	P value	d*
Total score of departmental rotation examination (max 115 points)	95.13 \pm 5.424	97.60 \pm 4.762	T = 2.179	0.032	0.50
History-taking score (max 15 points)	9.44 \pm 1.188	10.19 \pm 1.348	T = 2.665	0.009	0.59
Operating skill score (max 100 points)	85.69 \pm 4.899	87.40 \pm 3.895	T =1.747	0.084	0.39

*: Cohen's effect size (d)

Table 4: Scores from the subjective evaluation of clinical teachers

	Control group	SDTM group	Statistics	P value	d*
Total score (max 100 points)	90.00 \pm 2.883	90.59 \pm 3.589	T =0.819	0.415	0.18
Theoretical knowledge (max 40 points)	35.20 \pm 1.908	35.50 \pm 2.319	T = 2.665	0.536	0.14
Doctor-patient communication capability (max 30 points)	27.00 (26.00, 28.00)	28.00 (27.00, 29.00)	Z = -3.685	0.000	0.90
Independent learning capability (max 30 points)	28.00 (27.00, 29.00)	27.00 (26.00, 28.00)	Z = -2.308	0.021	0.53

*: Cohen's effect size (d)

Table 5: Teaching feedback from trainees

	Control group	SDTM group	Statistics	P value	d*
The lessons were enjoyable	3.64 ± 0.707	4.28 ± 0.636	T = 4.322	0.000	0.96
Time was tight	3.54 ± 0.682	3.02 ± 0.680	T = -3.369	0.001	0.75
Interaction between students and teacher was good	3.77 ± 0.842	3.83 ± 0.824	T = 0.346	0.887	0.08
I would act as a teacher	3.26 ± 0.637	4.41 ± 0.627	T = 8.171	0.000	1.82
I was able to learn a lot	3.69 ± 0.694	4.28 ± 0.708	T = 3.804	0.000	0.85

***: Cohen's effect size (d)**

Table 6: Objective parameter comparison of the long-term teaching effect

	Control group	SDTM group	Statistics	P value	d*
Skill score of *CMLE (max 100 points)	79.28 ± 9.714	83.43 ± 5.424	T = 2.103	0.039	0.47
Passing percentage of CMLE ^a	87.2% (34/39)	95.2% (40/42)	$\chi^2 = 1.663$	0.197	0.29

***: Cohen's effect size (d); a:CMLE: China medical licensing examination**

Adverse Events: There were no adverse events associated with this trial.