

# Using Team Based Learning in Clinical Research Education

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# SPEAKER

Lee, Hui-Chen



## Current Position

- Deputy Chairman, Institute Review Board Cathay General Hospital, Taipei, Taiwan.
- Deputy Director, Nursing Department Cathay General Hospital, Taipei, Taiwan.

## Highest Educational Attainment

- M.S. Graduate Institute of Nursing, Chang Gung University, Taiwan

## Experience

- Director of the Taiwan Association on Nursing Practice in Nongovernment Health Service
- Director of the Taiwan Society for Simulation in Healthcare

# Cathay General Hospital Medical Network

Medical Center

1977.02



Clinical Medicine Center



Clinic



2008.04

Regional Hospital



2005.12

Regional Hospital



2002.08



國泰綜合醫院  
Cathay General Hospital

國泰醫療財團法人

# Background

## Team-based learning (TBL)

- It is a structured flipped classroom teaching method.
- Designed to **enhance education** by promoting active learning, collaboration, and critical thinking for problem solving.





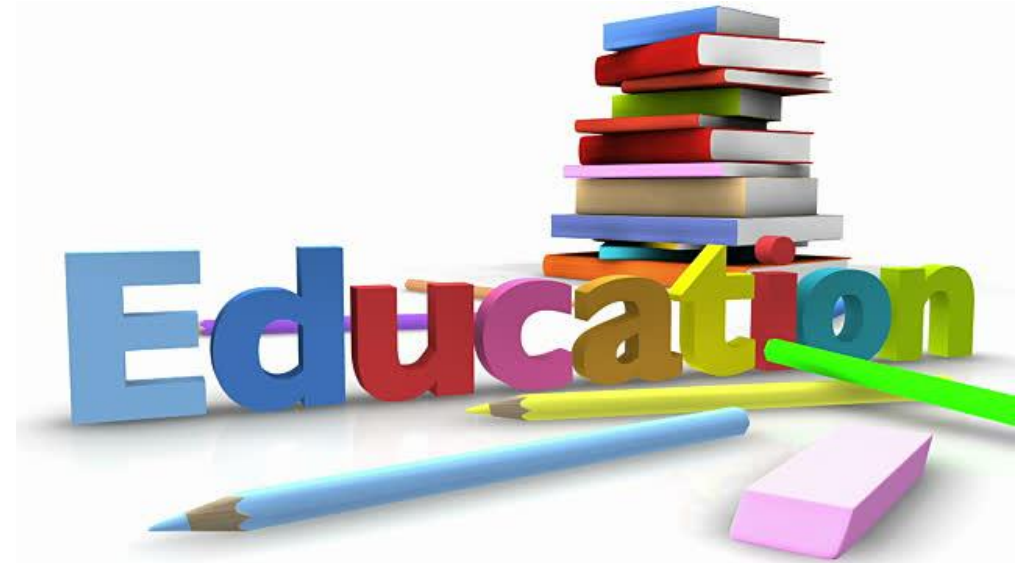
# Background

- Good clinical training is one of the most important topics and global trends in clinical trial quality and **requires appropriate teaching methods.**



# Background

- **Educational sessions** are used extensively by clinical research teams to provide ongoing clinical trial education and facilitate implementation of innovations or translation of new knowledge to change practice within the research system.



# Purpose

- Good clinical training use **workshop** means the integrates professional knowledge with the best available empirical evidence for decision-making .
- Workshop emphasizes the **combination of research and documentation with clinical practices.**



# Purpose

- The purpose of this study was to explore the effectiveness of a GCP workshop education approach for clinical trial teams.





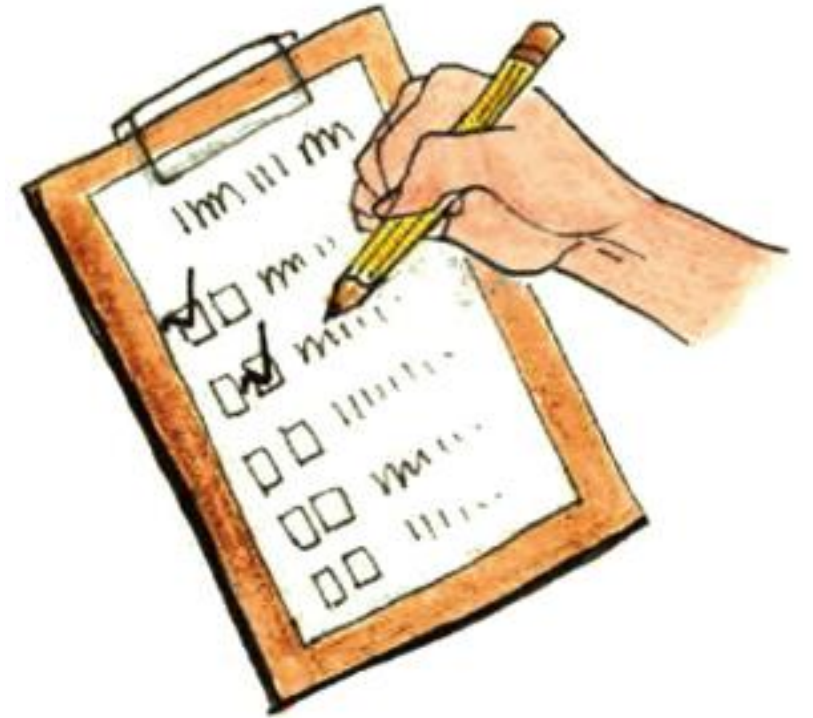
# Materials

- To achieve the intended goals of the GCP training standards, Taiwan Food and Drug Administration (TFDA) granted a project: **Strengthening the Training and Qualifications of Clinical Research Professionals** (MOHW112-FDA-D-113-000452).



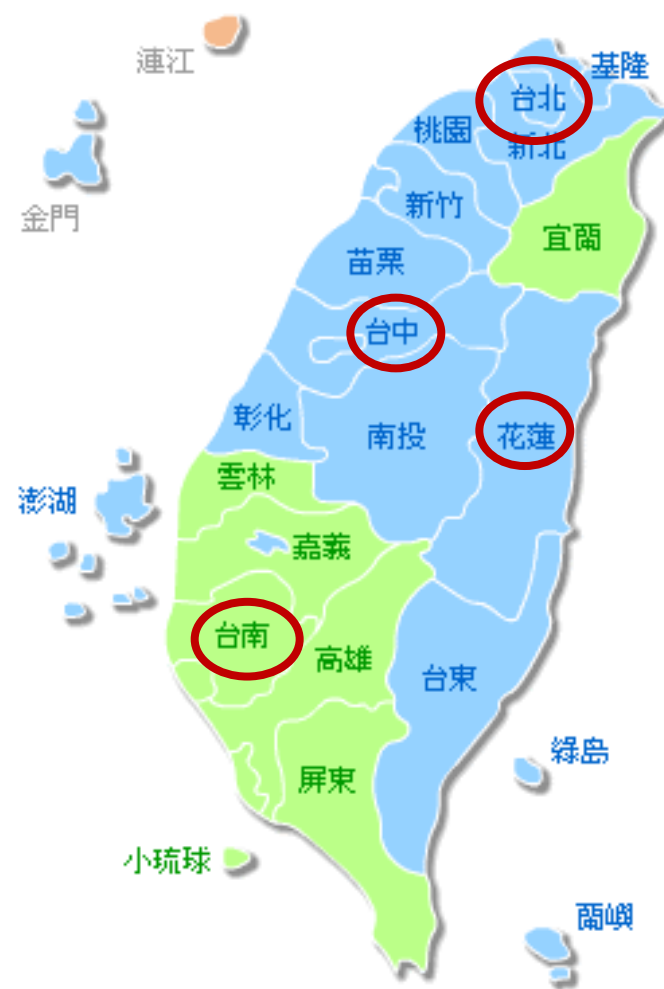
# Methods

- Data were collected via **questionnaire**, comparing knowledge through **post-test**, and assessing **satisfaction** at the end of the TBL workshop.



# Results

- The study was conducted through **four workshops** held in northern, central, southern, and eastern regions of Taiwan with a total of **310 participants**.



# Results

- There are more female students (66.1%), the participation rate from the north is 98 (31.6%), and 128 (41.3%) are over 45 years old.
- The satisfaction survey results of the TBL workshop showed **no significant difference** in satisfaction between **genders**.



# Results

variables	n(%)
gender	
male	105(33.9%)
Female	<b>205(66.1%)</b>
age	
Under 25 years old	13(4.2%)
26-30	25(8.1%)
31-35	49(11.3%)
36-40	56(18.1%)
41-45	53(17.1%)
Over 45 years old	<b>128(41.3%)</b>

Variables	n(%)
service unit	
In Hospital	<b>187(60.3%)</b>
CRO	4(1.3%)
Academia	54(17.4%)
Biotechnology	27(8.7%)
company	
IRB staffs	10(3.2%)
IRB members	12(3.9%)
Other	16(5.2%)





**Table 1. Analysis of gender differences in satisfaction after TBL workshops**

Question	Gender		P value
	Male	Female	
1. After the workshop, I have a better understanding of the IRB review process.			0.553
disagree	0(0%)	0(0%)	
middle	0(0%)	3(1.5%)	
agree	105(100%)	202(98.5%)	
2. After the workshop, I have a better understanding of the significance of risk assessment.			0.304
disagree	0(0%)	0(0%)	
middle	0(0%)	4(2%)	
agree	105(100%)	201(98%)	
3. It will be more helpful to write a research plan after the workshop.			0.553
disagree	0(0%)	0(0%)	
middle	0(0%)	3(1.5%)	
agree	105(100%)	202(98.5%)	

(continued~)

Question	Gender		P value
	Male	Female	
4. After the workshop, I have a better understanding of the tracking frequency by the IRB.			0.553
disagree	0(0%)	0(0%)	
middle	0(0%)	3(1.5%)	
agree	105(100%)	202(98.5%)	
5. After the workshop, do you think the IRB plays the role of assisting and protecting the PIs?			0.554
disagree	1(1%)	3(1.5%)	
middle	0(0%)	2(1%)	
agree	104(99%)	200(97.6%)	
6. After the workshop, do you think the IRB plays a role in hindering research?			0.850
disagree	26(24.8%)	49(23.9%)	
middle	5(4.8%)	13(6.3%)	

# (continued~)

Question	Gender		P value
	Male	Female	
7. After the workshop, do you think the IRB review case process is transparent?			0.171
disagree	0(0%)	0(0%)	
middle	0(0%)	5(2.4%)	
agree	105(100%)	200(97.6%)	
8. After the workshop, do you think it is time-consuming to submit the research proposal for review?			0.813
disagree	11(10.5%)	23(11.2%)	
middle	10(9.5%)	24(11.7%)	
agree	84(80.0%)	158(77.1%)	
9. Will you attend a workshop course next time?			0.209
disagree	0(0%)	1(0.5%)	
middle	0(0%)	5(2.4%)	
agree	105(100%)	199(97.1%)	

# Conclusion

- **TBL workshop** can increase **professional knowledge and skills**; it is recommended to implement for advanced training course.
- TBL education provided by experts can bring about effective knowledge transformation through face-to-face teaching strategies.



# Conclusion

- It concludes that due to the skills of the professors who organized the workshop and their level of expertise and experiences, they were able to induce more educational effects on the learners.





# Limitations

- Small sample size and lack of generalizability of results.
- In this study, TBL-workshop skills were assessed immediately after the workshop, then long-term outcomes did not examine.
- The research design only collects post-test results, and need to collect pre-test baseline for comparison in the future study.

# Future Outlook

- In this study, TBL was used in the workshop and the success of the workshop might have been due to the use of TBL training strategy.
- Results from participants who experienced TBL sessions indicate that TBL improved teamwork, self-study, problem solving, communication skills, and professionalism.
- It is recommended that the effectiveness of TBL workshop will be explored in future study.





# Photos





**Thank you for your attention.**