

## **Empowerment Program on Promoting Perceived Self-Care Efficacy and Diabetic Control in Uncontrolled Type 2 Diabetic**

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### **Outline**

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## Background of Problem

- ❖ Prevalence of diabetes mellitus has increased.
- ❖ Persons who had a high risk of diabetes had high prevalence 5.4%. (Aekplakorn, et al., 2003)
- ❖ 3 % of patients could control their disease. (Chuprapawan, 2000)
- ❖ Causes in acute and chronic complications.



## Background of Problem(Con.)

- ❖ Helping diabetes models increase the level of knowledge, but the ability to control the disease was not stabilized.
- ❖ Many models are not community outreach
- ❖ Researcher : expertise-role  
Patients : passive – role



❖ Which method represent community outreach and can be easily applied to practical setting and improves the ability to control the disease?



**An Empowerment program**



### **Purpose of the study**

**To determine the effect of the empowerment program on promoting perceived self-care efficacy and diabetic control in uncontrolled type 2 diabetics.**



## Hypotheses

1. After entering the program, patient's mean scores on the overall and each dimension of perceived self-care efficacy are higher than the mean scores before entering the program.
2. Means of fasting blood sugar in each month through the end of the program are lower than the mean before entering the program.
3. After entering the program, patient's mean scores on diabetic control would be higher than the mean scores before entering the program.



## Theoretical framework

**Perceived  
Self-Efficacy Concept  
(Bandura, 1986; 1997)**

**The confidence in  
self-abilities to manage  
and to perform  
behavioral performance**

**Empowerment Concept  
(Gibson, 1995)**

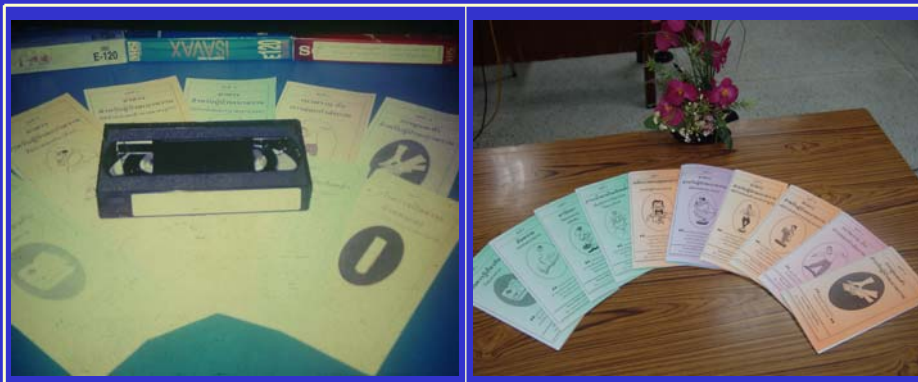
**The process of  
promoting and  
enhancing personal  
abilities**

## Methods

- \* **Quasi-experimental one-group pre-post test design**
- \* **64 patients purposive sampling, the inclusion criteria were**
  - 1. Uncontrolled type 2 diabetic patients.**
  - 2. Being 40 years old or over, both male and female.**
  - 3. Alert, good hearing, able to read, write and understand Thai language and numbers.**

## Methods(Con.)

### Experimental Instrumentation



The manual of type 2 diabetes empowerment program



## Methods (Con.)

### Questionnaire

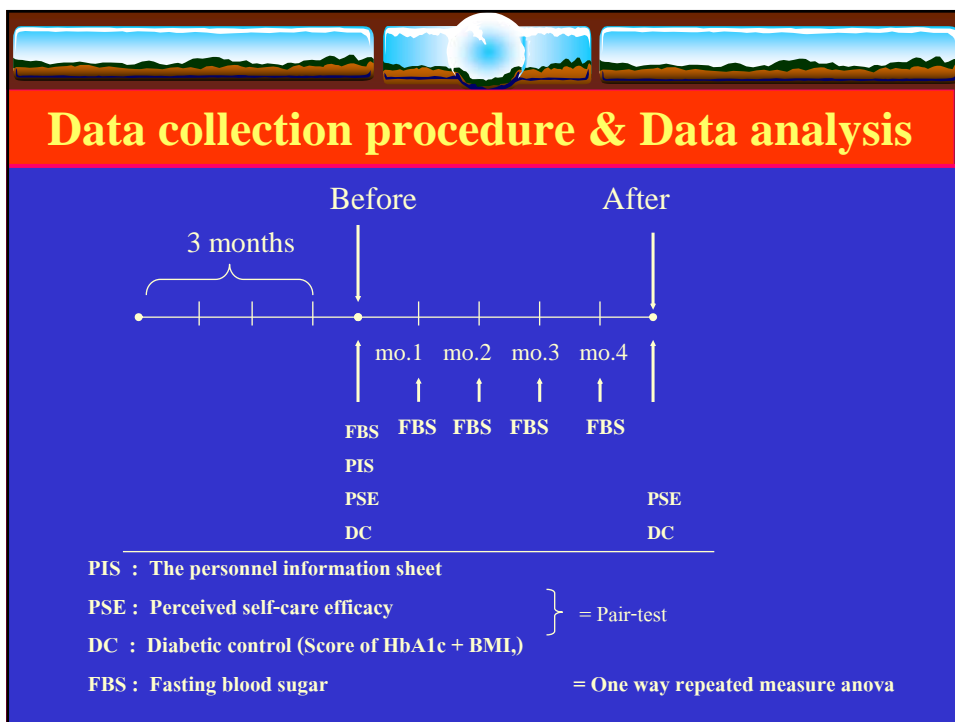
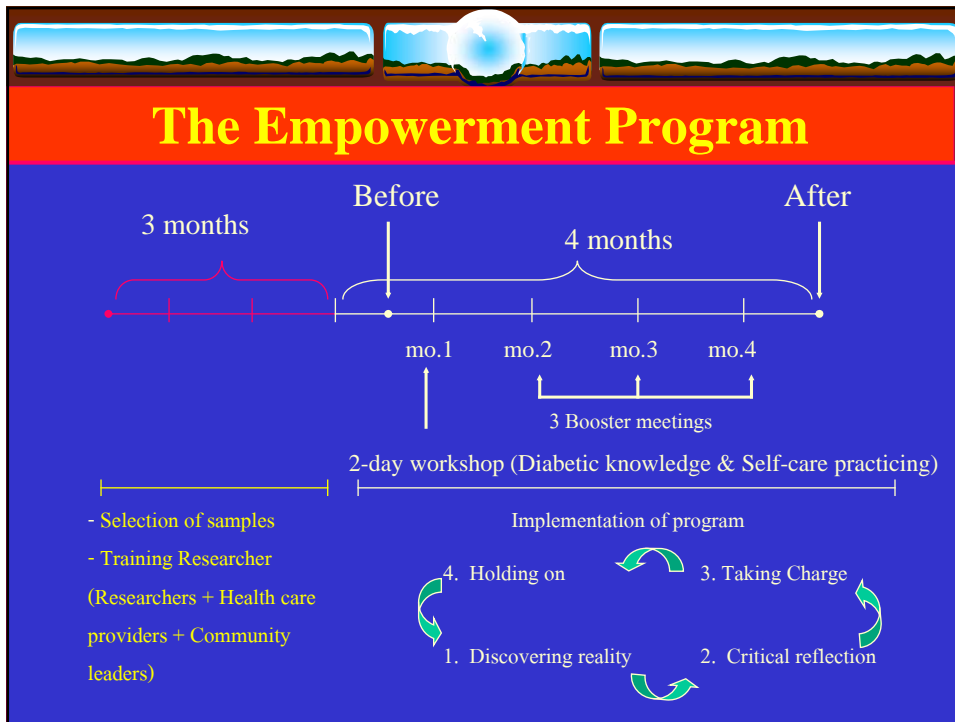
- \* **Perceived self-care efficacy measurement**
  - Cronbach's alpha ranged from **0.87-0.96**
  - **30** patients in this study, cronbach's alpha had **0.92**

## Methods (Con.)

### Questionnaire

- \* **Diabetic control assessment (A score range from 0-4)**

HbA1c	BMI
<b>Good</b> (HbA1c 4.6-6.7%; Score = 2)	<b>Good</b> (20-25 kg/m <sup>2</sup> for male; score=2) (19-24 kg/m <sup>2</sup> for female; Score =2 )
<b>Fair</b> (HbA1c 6.8-8.9%; Score = 1)	<b>Fair</b> (25.1-27 or 18-19.9 kg/m <sup>2</sup> for male; score=1) (24.1-26 or 17-18.9 kg/m <sup>2</sup> for female; score=1)
<b>Poor</b> (HbA1c<4.6 or >9%;Score = 0)	<b>Poor</b> (>27 or <18 kg/m <sup>2</sup> for male; score=0) (>26 or <17 kg/m <sup>2</sup> for female; score=0)



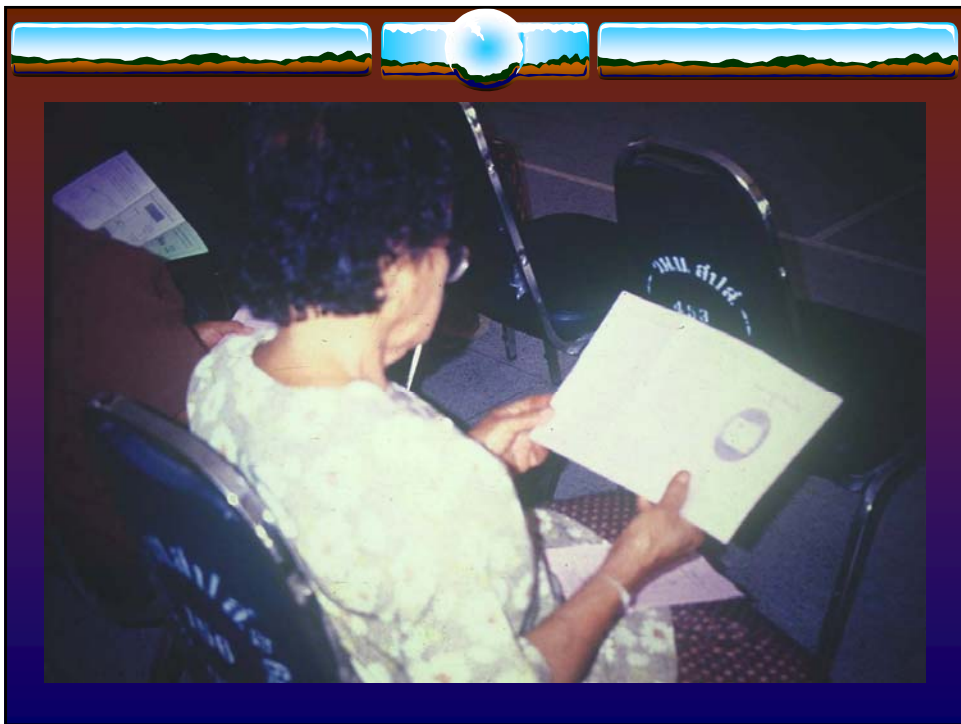




















## The Results of the Study

**Table 1 Comparison of the mean scores on the overall of perceived self-care efficacy before and after entering the program (n = 64)**

Perceived self-care efficacy	Before		After		t-value
	M	SD	M	SD	
Total	70.12	4.85	79.62	4.01	19.67

\* P<.001

**Table 2 Comparison of the mean scores on each dimension of perceived self-care efficacy before and after entering the program (n = 64) (con.)**

Perceived self-care efficacy	Before		After		t-value
	M	SD	M	SD	
Dietary control	69.40	5.21	78.86	4.96	16.13*
Medication management	62.09	4.70	75.80	5.33	16.51*
Exercise behavior	61.83	10.59	74.51	8.20	9.70*
Hyper-hypoglycemia prevention	62.66	9.21	76.56	5.10	12.91*
Hygiene Care	76.04	5.44	82.84	4.16	12.51*
Others	76.33	6.13	83.73	4.48	7.01*

\* P<.001

**Table 3 Comparison the means of fasting blood sugar for 5 consecutive months. (0,1,2,3 and 4) with Oneway repeated measure ANOVA (n = 64)**

Source of variance	Df	SS	MS	F	P
Between patient	52	153176.70	3829.42		
Between time	4	93352.65	23338.16	50.86	.00
Error	160	75309.35	470.68		
Total	216	321838.70	1577.64		

**Table 3 Comparison the difference of mean in each monthly pair with List Significant difference (LSD) ANOVA (n = 64) (Con.)**

Month	Range	M	SD	Month	0	1	2	3	4
0	147-328	201.05	45.98		-				
1	86-281	172.20	43.89		***	-			
2	121-246	154.78	29.79		***	**	-		
3	100-202	142.85	26.63		***	***	**	-	
4	92-199	136.76	23.00		***	***	***	*	-

\*\*\*P<.0001 , \*\*P<.01 , \*P<0.05

**Table 4 Comparison of the mean score on diabetic control before and after entering the program (n = 64)**

<b>Diabetic Control</b>	<b>M</b>	<b>SD</b>	<b>t</b>	<b>P</b>
Before entering the program	1.13	0.89		
After entering the program	2.52	1.18	10.41	<.01

**Table 5 Frequency and percentage of subjects in each month divided on diabetic control by using FBS level (n = 64)**

<b>FBS</b>	<b>Frequency (Percent)</b>		
	<b>Poor</b>	<b>Fair</b>	<b>Good</b>
Before entering the program	64(100%)		
Month 1	52(81.3%)	12(18.7%)	
Month 2	38(59.4%)	24(37.5%)	2(3.1%)
Month 3	29(45.3%)	27(42.2%)	8(12.5%)
Month 4	16(25.0%)	34(53.1%)	14(21.9%)



## Conclusion

### Empowerment Program

- \* Improve perceived self-care efficacy
- \* Improve diabetic control
- \* Community outreach : Cooperative activities between health care providers, community leaders, and diabetic patients



## Implications & Recommendations

- ❖ Develop a nursing practice guideline for caring diabetic and other chronic patients
- ❖ A long term follow up study :
  - A rigorous methodology
  - The strategies, health care systems, advantage and disadvantage and effectiveness of these models.

# Acknowledgements



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