

The 4Es' factors related to the asthma control among adult and elderly asthmatic patients



Presented by

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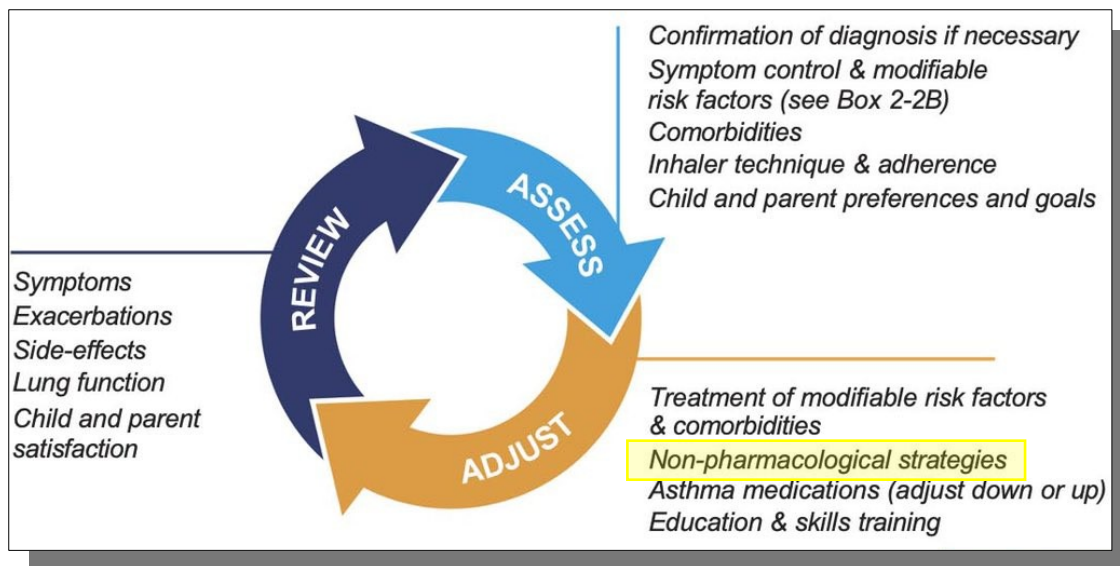
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Background



(Global initiative for asthma [GINA], 2022)

 Little is known about 4Es factors correlated asthma control in the Thai asthma population.

“The 4Es’ model”

The promoting of environment, eating, emotion, and exercise; (4Es model) influence on asthma control among asthmatic patients.

(Poachanukoon, 2019)



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Objective



*“The aim of this study was to examine the **correlated of 4Es factors** on asthmatic control.”*



Method

cross-sectional correlative study design



Populations & Samples



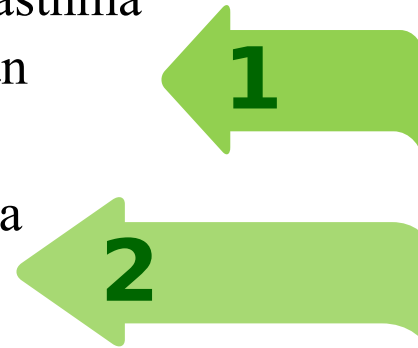
● **Populations** Thai male and female asthmatic patients, who were ≥ 18 years of age from 12 hospitals in Health Region 4 of Thailand.



● **Samples** The purposive sampling were used to recruit *421 asthmatic patients* who were ≥ 18 years of age from 12 hospitals in Health Region 4 of Thailand.

Inclusion criteria

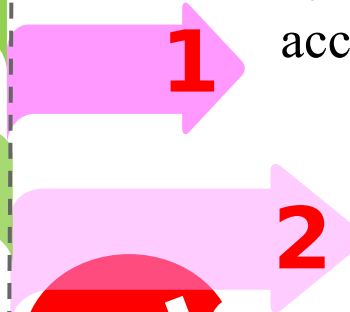
- diagnosed with asthma by a physician
- continuing asthma treatment for at least 6 months



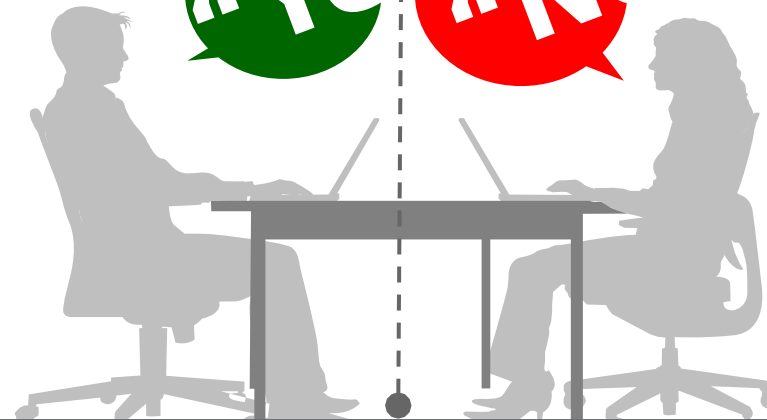
“Yes”

Exclusion criteria

- diagnosed with COPD by a physician were assessed according to GOLD guideline
- hospitalized with dyspnea symptom by other disease such as ESRD and CHF






“No”





Instrument

The instrumentations used for collecting data included :

-  a demographic data form
-  the 4Es Questionnaire
-  the Asthma Control Test (ACT).



Statistical analysis







The data were analyzed using :

-  Descriptive statistics
-  Pearson correlation



Result



-  78% were female
-  67% well control level of asthma
-  33% uncontrol level of asthma
-  34% acute exacerbation in previous year
-  30% ER visited with asthma
-  11% hospitalization with asthma

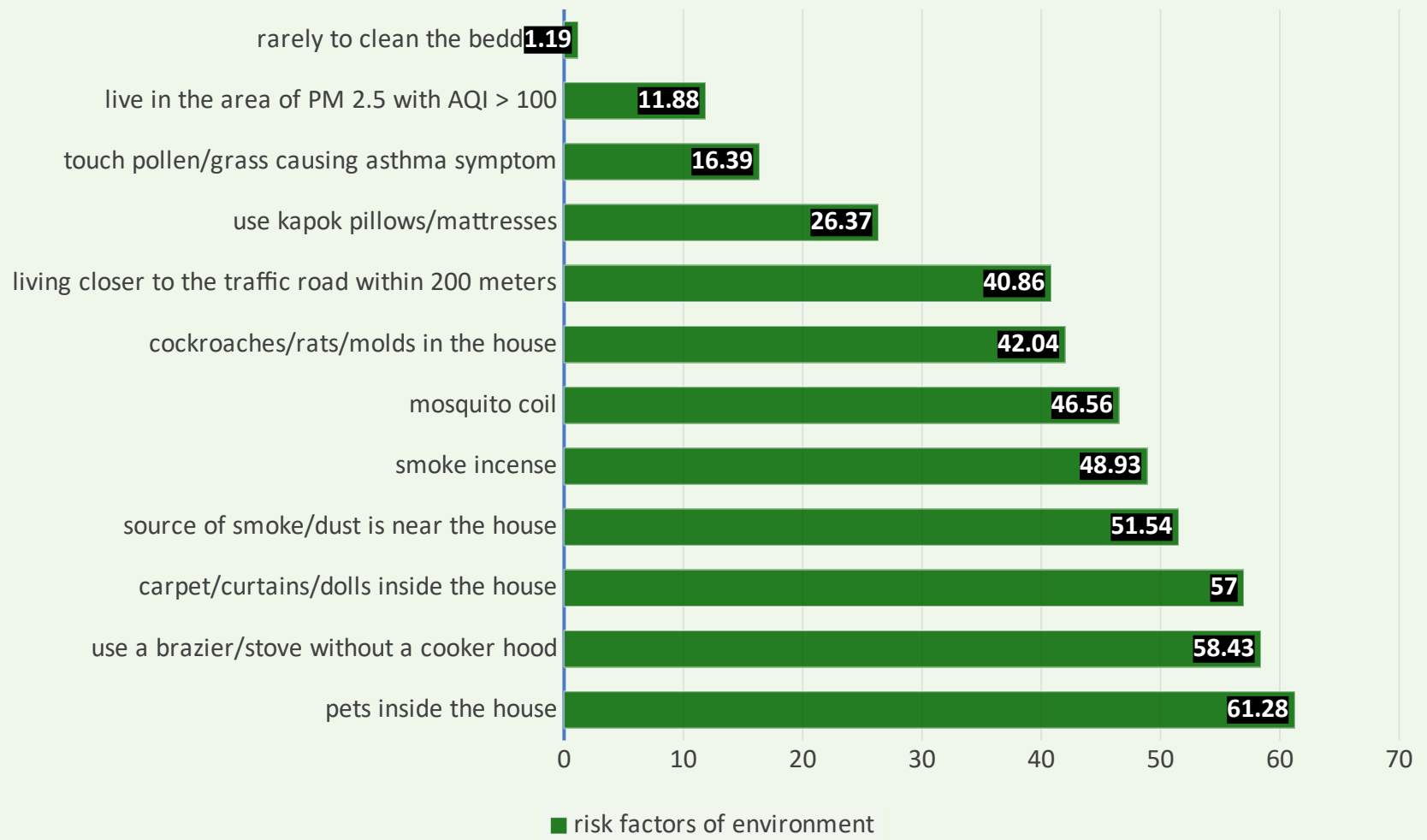




Result



Table 1 : Environmental domain



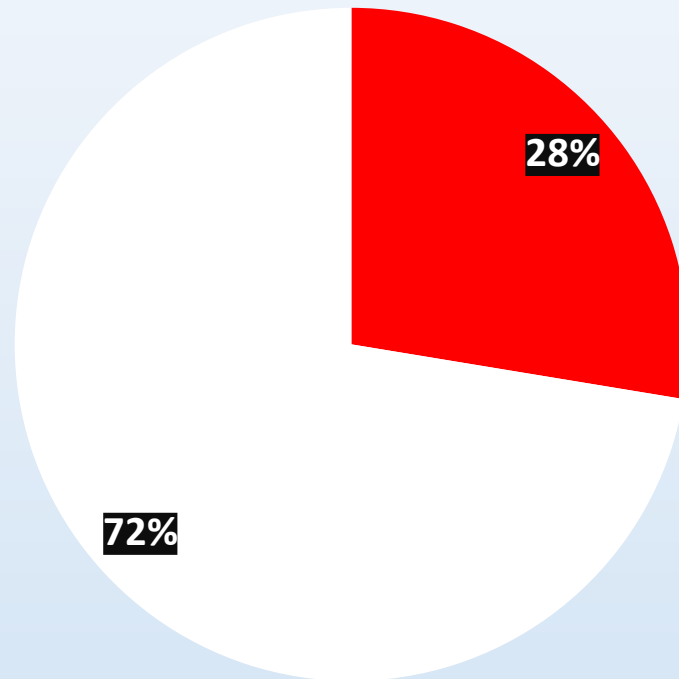


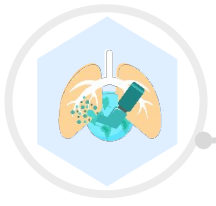
Result



Table 2: Emotional domain

■ anxiety ■ no anxiety

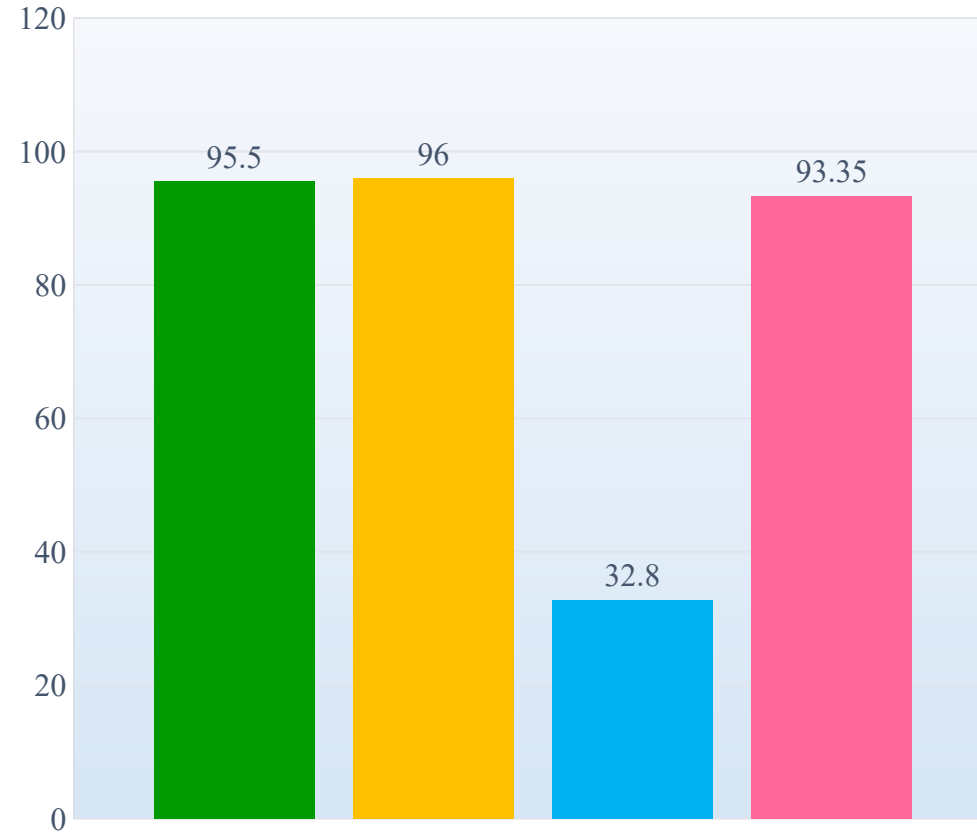




Result



Table 3: Eating domain



■ a vit D food ■ high fat food

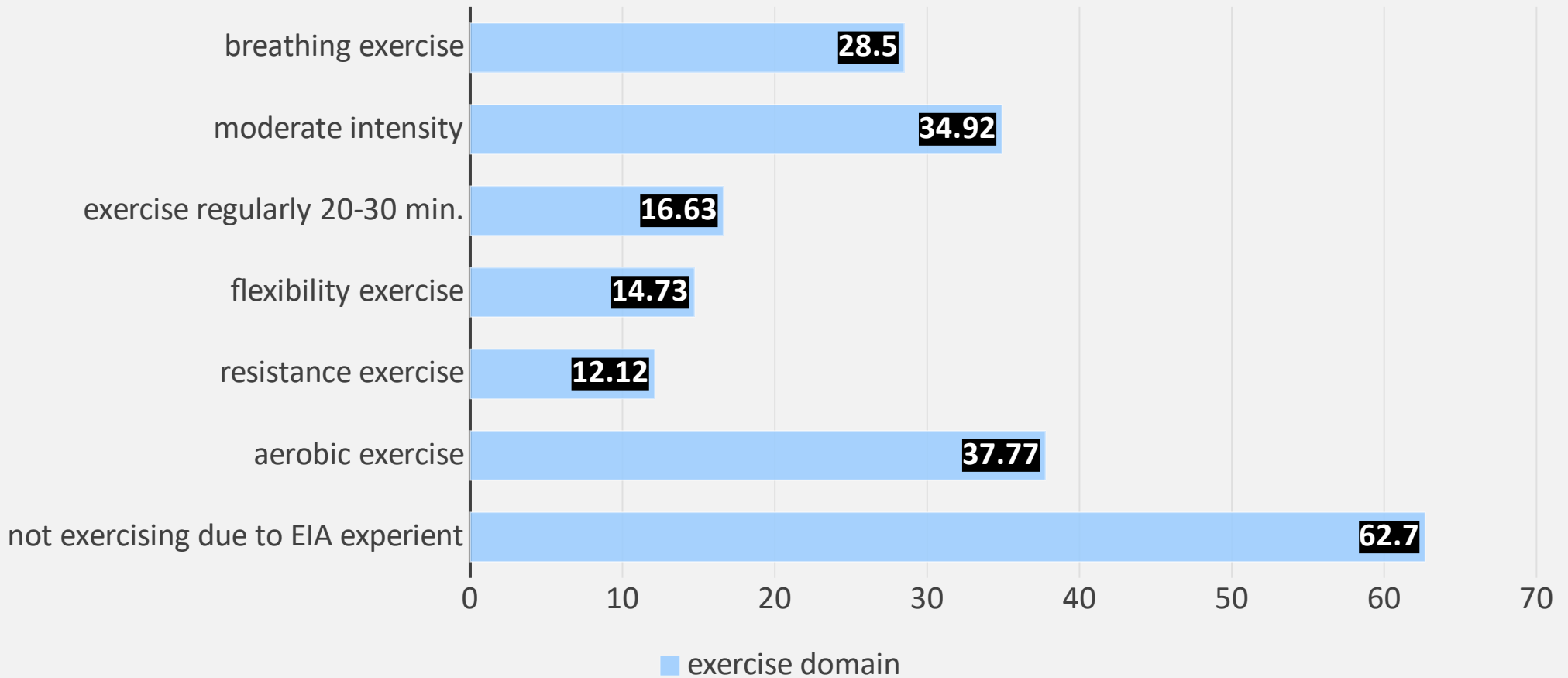
■ food allergy ■ control the amount of food/calories



Result



Table 4 : Exercise domain





Result & Discussion



Table 5 : Correlation matrix between 4Es factors and asthma control

Factors	1	2	3	4	5
1. Environmental	1				
2. Emotional	-.187**	1			
3. Eating	.252**	-.293**	1		
4. Exercise	.204**	-.212**	.293**	1	
5. Asthma control	.385**	-.368**	.376**	.321**	1



anxiety was negatively associated with asthma control at the .01 level ($r = -.368$, $p = .000$)

** $p < .01$



Risk factors management and environmental behavior, eating behavior, and exercise behavior were positively associated with statistically significant asthma control at the .01 level ($r = .385$, $p = .000$ and $r = .376$, $p = .000$ and $r = .321$, $p = .000$ respectively).



Conclusion



“ The results of this study indicated that healthcare providers should encourage asthmatic patients to control their asthma via manipulating 4Es – promoting good environment, emotional, eating, and exercise.”



“ These can be self managed by patients to reduce the asthma exacerbation and achieve successful asthma control.”



