



Lesson Learned of Herbal and Traditional Medicine (HTM) use from EGAT study


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RESEARCH ARTICLE

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Herbal or traditional medicine consumption in a Thai worker population: pattern of use and therapeutic control in chronic diseases

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Journal

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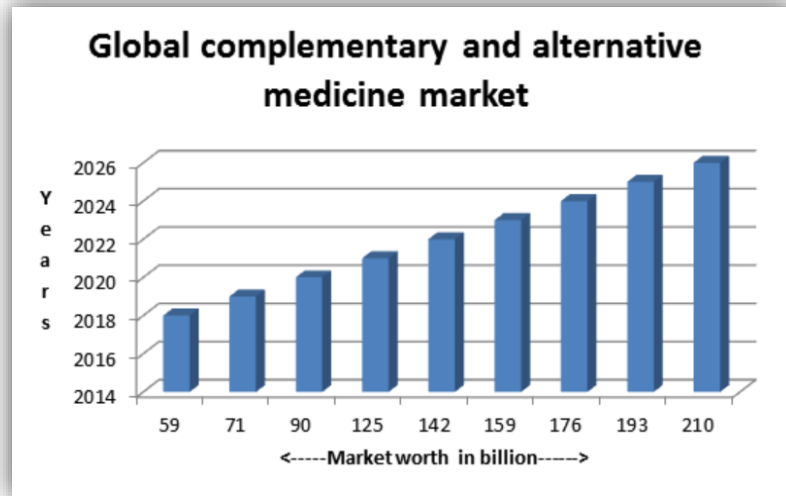
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Growing use of HTMs

Complementary & Alternative Medicine Market Worth \$210.81 Billion By 2026



Points of concern

- Risks of irrational use of HTMs for self-medication due to a lack of knowledge (Eichhorn et al, 2011)
- Quality of raw materials and products as the main challenges of HTMs available in Thai market (Kwankhao et al 2020)



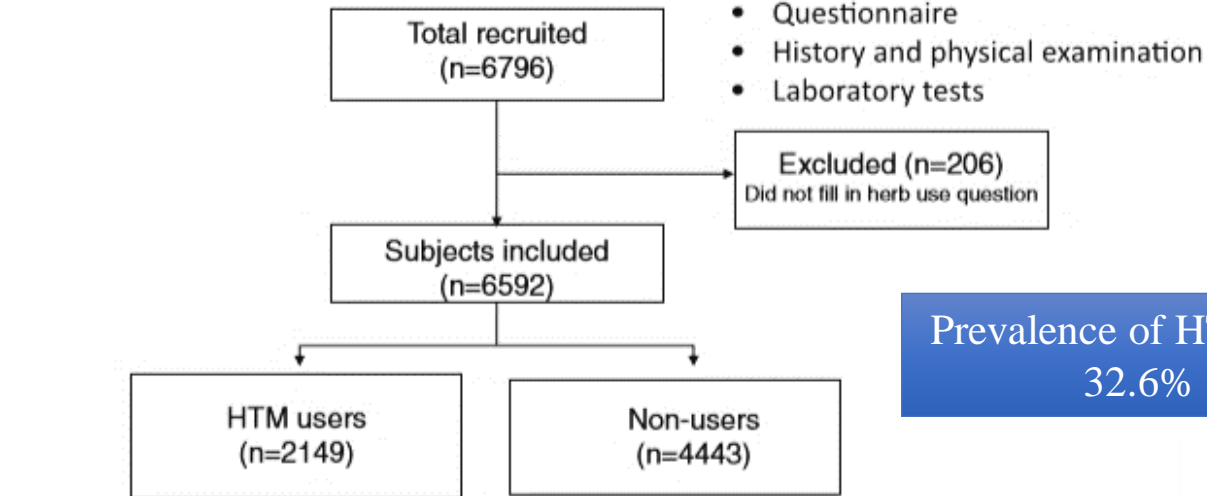
Research methods



Populations: employees of EGAT

Age: 25-76 years old

participant received a full medical history and physical examination



Prevalence of HTM use:
32.6%

1. Analysis according to clinical and laboratory criteria (n=6592)

2. Analysis according to presence or absence of self-reported chronic diseases by questionnaire: hypertension (n= 6425), dyslipidemia (n= 6310), liver disease (n=6338), diabetes (n=6488), pre-existing cardiovascular disease (n=6592) and cancer (n=6592)

Key findings

Factors associated with HTM use

Variable		Univariate			Multivariate		
		OR	95% CI	P-value	OR	95% CI	P-value
Age (> 50 vs < 50 years)	Age < 50 Female	0.91	0.81–1.01	0.07	0.82	0.72–0.93	0.002
Sex (F vs M)		1.17	1.05–1.32	0.006	1.34	1.17–1.54	< 0.001
Obesity (Y vs N)		1.11	0.92–1.34	0.2			
Education (Secondary vs higher)		1.00	0.91–1.11	0.9			
Income (< 20,000 THB vs higher)		1.07	0.91–1.25	0.4			
Current smoker (Y vs N)		0.96	0.84–1.10	0.5			
Current alcohol (Y vs N)	Alcohol DM	1.18	1.06–1.31	0.003	1.30	1.30–1.14	< 0.001
SR Diabetes mellitus (Y vs N)		1.43	1.21–1.69	< 0.001	1.37	1.14–1.66	0.001
SR Hypertension (Y vs N)		1.12	1.00–1.26	0.058			
SR Liver disease (Y vs N)	Liver disease Dyslipidemia Cancer	1.42	1.21–1.67	< 0.001	1.39	1.17–1.64	< 0.001
SR Dyslipidemia (Y vs N)		1.31	1.18–1.46	< 0.001	1.33	1.18–1.50	< 0.001
SR Cancer (Y vs N)		1.38	1.07–1.78	0.01	1.32	1.003–1.74	0.047
SR CVD (Y vs N)		0.96	0.74–1.24	0.7			

OR Odds ratio, CI confidence interval; Obesity; BMI > 30 kg/m²; Income, Monthly household income in Thai Baht; SR self-reported, CVD cardiovascular disease

Key findings

Types of HTM used

- Self-reported diseases

DM	HT	DLP	Liver DZ	CA
1. Cinnamon	1. Garlic	1. Heart-leaved moonseed	1. Heart-leaved moonseed	1. Lingzhi mushroom
2. Heart-leaved moonseed	2. Heart-leaved moonseed	2. Black ginger	2. Mixed botanical preparations	2. Ginseng
3. Safflower	3. Cinnamon	3. Safflower	3. Cinnamon	3. Cinnamon
4. Black ginge	4. Lingzhi mushroom	4. Cinnamon	4. Lingzhi mushroom	4. Turmeric
5. Lingzhi mushroom	5. Mixed botanical preparations	5. Turmeric	5. Turmeric	5. Safflower
6. Garlic	6. Kariyat	6. Lingzhi mushroom	6. Garlic	6. Mixed botanical preparations
7. Drumstick tree	7. Drumstick tree	7. Kariyat	7. Kariyat	7. Black ginger
8. Turmeric	8. Turmeric	8. Mixed botanical Preparations	8. Ginseng	8. Kariyat
9. Mixed botanical preparations	9. Ginseng	9. Ginseng	9. Drumstick tree	
10. Ginseng	10. Trditional alcohol with herbs	10. Drumstick tree	10. Black ginger	

Key findings

- Laboratory defined diseases

Types of HTM Used

ALT x 1.5	CKD 3-5
1. Mixed botanical preparations	1. Lingzhi mushroom
2. Safflower	2. Black ginger
3. Garlic	3. Ginseng
4. Cinnamon	4. Turmeric
5. Ginseng	5. Cinnamon
6. Kariyat	6. Garlic
7. Heart-leaved moonseed	7. Kariyat
8. Lingzhi mushroom	8. Mixed botanical preparations
9. Drumstick tree	9. Drumstick tree
10. Turmeric	
11. Black ginger	



HTM use based on evidence based indications??



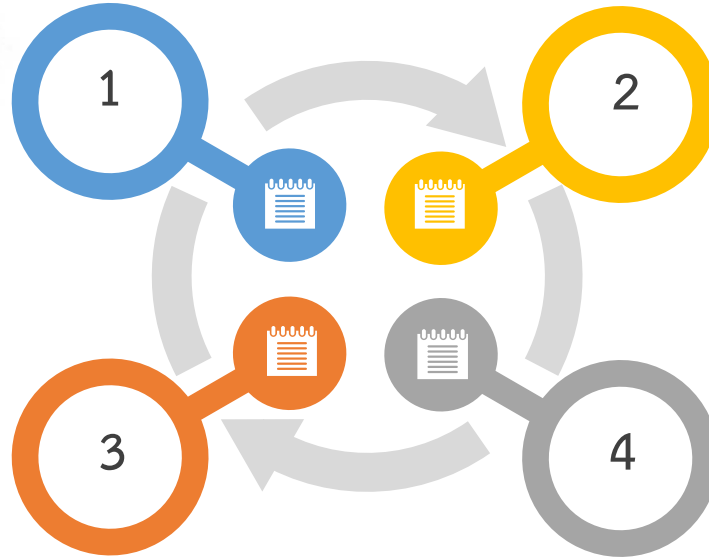
Turmeric

- ✓ Lipid lowering effect
- ✓ Anti-oxidant
- ✓ Anticancer properties



Garlic

- ✓ Blood pressure control
- ✓ Lipid lowering effect
- ✓ Platelet aggregation inhibition



Cinnamon

- ✓ Improving glycemic control in diabetics



Lingzhi mushroom

- ✓ Immunomodulation
- ✓ Anti-oxidant
- ✓ Inhibitory effect on angiotensin converting enzyme in kidney

Conclusion



1

No association between HTM use and therapeutic control

2

Heterogeneity in dose, duration and preparations used

3

Top five HTMs: Turmeric (20%), Cinnamon (19%), Heart-leaved moonseed (18%), Garlic (17%), Ginseng (13%)

4

Special concern: mixed botanical preparation, traditional alcohol with herbs

Policy recommendation



International level : Collaboration on the development of evidence-based practice of HTM use



National level : Implementation of policy/legislation to promote safe practice of HTM use.



Health setting level : Working in partnership with patients/consumers in order to response to various health needs.



Individual level : Promotion of health literacy.

Thank you

