



Importance of CAM: research, education and practice

Hwee-Ling Koh

Department of Pharmacy

Faculty of Science

National University of Singapore

ISPOR 6 Sep 2016

Integrating Evidence-Based and Cost-Effective
Complementary and Alternative Medicine
(CAM) Into the Health Care Systems in Asia

- Where are we now?
- What do we want to achieve?
- What are the challenges?
- How to get there?

Indian Prime Minister Narendra Modi
leading 35,000 people in **yoga**



Delhi, 21 June 2015

Eulogy



- In his old age, after my mother died, my father started **meditating** again...
- He probably felt I needed to resume **meditation** too. To give you some context, this was a few months after the 2011 General Elections....
- So this morning, before the ceremonies began at Parliament House, when we had a few minutes, I sat by him and **meditated**.

Prime Minister Mr Lee Hsien Loong's eulogy
at the funeral of the late Mr Lee Kuan Yew, 29 Mar 2015

Terminologies

- Complementary and alternative medicine (CAM)
- Traditional and Complementary Medicine (T&CM)
- Integrative medicine (IM)

Integrative Medicine

- Patient centred care (individualized)
- Holistic approach
- Uses all appropriate therapeutic modalities
- Uses body's ability to heal itself through self care
- Emphasizes prevention and wellness
- Informed by evidence
- Varied in practice

Integrative medicine

It is the practice of medicine that reaffirms the relationship between practitioner and patient, focuses on the whole person, informed by evidence, and makes use of all appropriate therapeutic approaches, healthcare professionals and disciplines to **achieve optimal health and healing**.



<https://www.imconsortium.org/>

Osher Center for Integrative Medicine



**OSHER CENTERS
FOR INTEGRATIVE MEDICINE**

- Harvard Medical School and Brigham and Women's Hospital, Boston, MA
- Karolinska Institute, Stockholm, Sweden
- Northwestern University, Chicago, IL
- University of California, San Francisco, CA
- Vanderbilt University, Nashville, TN



■ <http://www.osher.ucsf.edu/>

University of California San Francisco
Osher Center for Integrative Medicine

- Mindfulness & Meditation
- Yoga
- Living with Cancer
 - Healing Through Dance
 - Restorative Movement
 - Core & More
 - YogaCares: Therapeutic Yoga for Cancer Patients
 - Meditation and Guided Imagery
- Laughter Yoga

National Health Statistics Reports

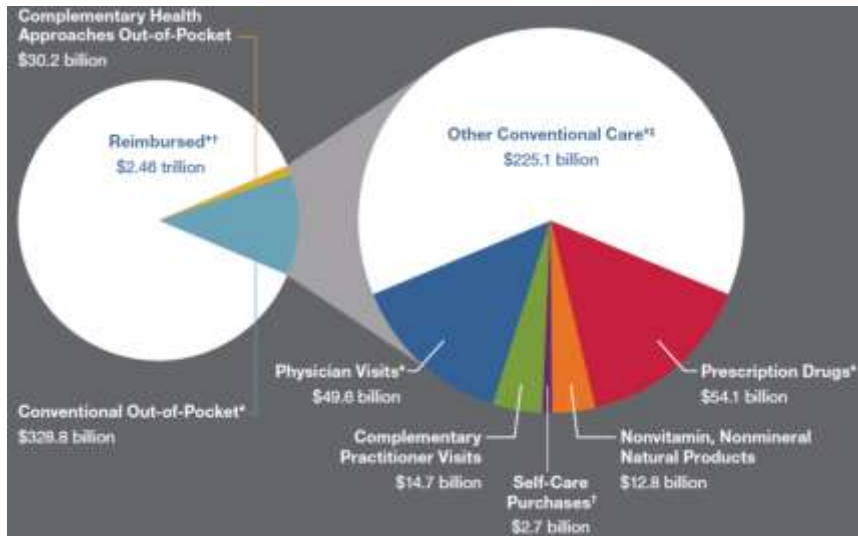
Number 79 ■ February 10, 2015

Trends in the Use of Complementary Health Approaches Among Adults: United States, 2002–2012

by Talinya C. Clarke, Ph.D., M.P.H., Lindsey I. Black, M.P.H., National Center for Health Statistics;
Barbara J. Stussman, B.A., National Institutes of Health; Patricia M. Barnes, M.A., National Center for Health
Statistics; and Richard L. Nahin, Ph.D., M.P.H., National Institutes of Health

National Health Statistics Reports, no. 79, 10 Feb 2015,
<http://www.cdc.gov/nchs/data/nhsr/nhsr079.pdf>

Total Health care spending in 2012, USD 2.82 T



<https://nccih.nih.gov/about/strategic-plans/2016/use-cost-complementary-health-approaches>

| Complementary Health Approaches | Percentage (%) in 2012 |
|--|------------------------|
| Non-vitamin, non-mineral dietary supplements | 17.7 |
| Deep-breathing exercises | 10.9 |
| Yoga, tai chi, and qi gong | 10.1 |
| Chiropractic or osteopathic manipulation | 8.4 |
| Meditation | 8.0 |
| Massage therapy | 6.9 |
| Special diets | 3.0 |
| Homeopathic treatment | 2.2 |
| Progressive relaxation | 2.1 |
| Guided imagery | 1.7 |
| Acupuncture | 1.5 |
| Energy healing therapy | 0.5 |
| Naturopathy | 0.4 |
| Hypnosis | 0.1 |
| Biofeedback | 0.1 |
| Ayurveda | 0.1 |

SOURCE: CDC/NCHS, National Health Interview Survey, 2002, 2007, and 2012. National Health Statistics Reports No. 79, 10 Feb 2015

Variety of approaches

- TCM
- Dietary changes
- Lifestyle changes
- Food therapy
- Mindfulness
- Massage therapy
- Art therapy
- Music therapy
- Pet therapy etc



Traditional Chinese Medicine

- Chinese herbal medicine
- Acupuncture
- Cupping
- Tui Na
- Moxibustion
- Lifestyle
- Diet
- Food therapy etc



The Evolution of Alternative Medicine

When it comes to treating pain and chronic disease, many doctors are turning to treatments like acupuncture and meditation—but using them as part of a larger, integrative approach to health.

Jennie Rothenberg Gritz
The ATLANTIC, 25 June 2015

<http://www.theatlantic.com/health/archive/2015/06/the-evolution-of-alternative-medicine/396458/>

Cost effectiveness of Tai Ji Quan

PREVENTING CHRONIC DISEASE
PUBLIC HEALTH RESEARCH, PRACTICE, AND POLICY
Volume 12, E120 JULY 2015

ORIGINAL RESEARCH
Economic Evaluation of a Tai Ji Quan
Intervention to Reduce Falls in People With
Parkinson Disease, Oregon, 2008–2011

Cost-effective strategy for optimizing spending
to prevent falls and maximize health gains
in people with Parkinson disease

- twice a week for 6 months
- adherence rate of 77%
- reduced cost of \$175 per additional fall prevented relative to a Stretching exercise program)

Fuzhong Li and Peter Harmer, 2015

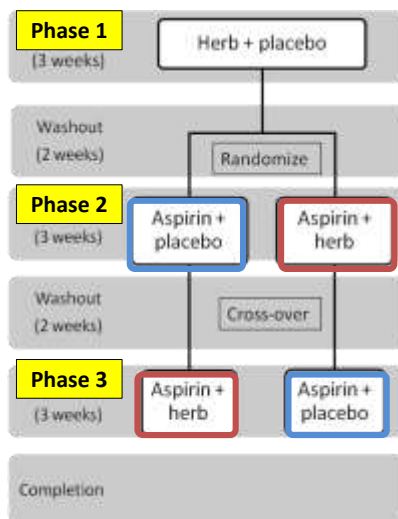
A randomized, double-blind, placebo-controlled study on the anti-haemostatic effects of *turmeric*, *dong guai* and ginseng

Safety

Fung FY, Wong WH, Ang SK, Koh HL, Kun MC, Lee LH, Li X, Ng HJ, Tan CW, Zhao Y, Linn YC

A/P Linn Yeh Ching, SGH

Study design



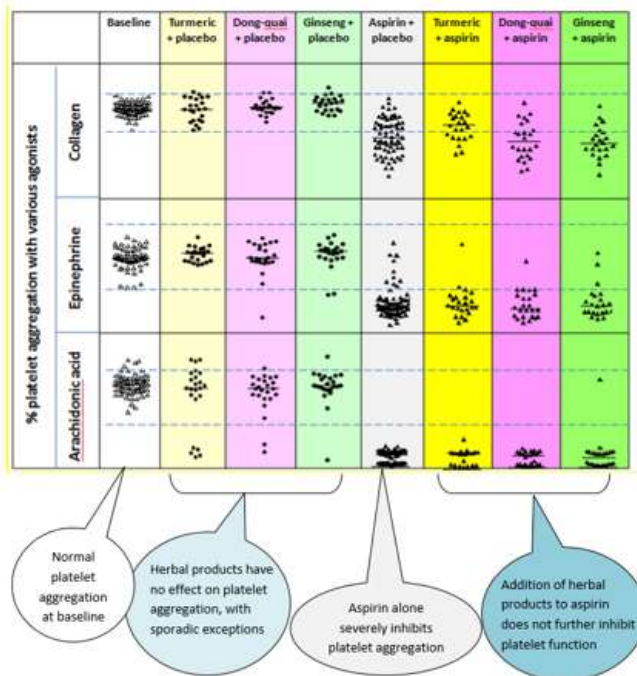
For each herb

- 25 healthy subjects
- 3-phases
- Double-blind
- Placebo-controlled
- Randomized
- Cross-over

Turmeric

Dong Guai (*Angelica sinensis*)

Ginseng (*Panax ginseng*)



Contents lists available at ScienceDirect

Journal of Ethnopharmacology

journal homepage: www.elsevier.com/locate/jep

Ethnobotanical survey of usage of fresh medicinal plants in Singapore

Yin-Yin Siew^a, Sogand Zareiszedehzadeh^a, Wei-Guang Seetoh^a, Soek-Ying Neo^a,
Chay-Hoon Tan^b, Hwee-Ling Koh^{a,*}

Siew *et al*, J Ethnopharmacology, 2014, 155, 1450-66

Parks and Therapeutic Gardens

1. Effects of **Horticultural Therapy** on Asian Elderly's Mental Health
2. **Dementia Prevention** Program
3. **Parks** Prescription
4. Surveying, Benchmarking, and Expanding the Wellbeing and Social Cohesion: Impacts of **Community Gardening** Programmes in Singapore



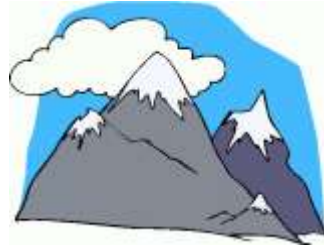
<https://www.nparks.gov.sg/~media/nparks-real-content/news/2016/launch-of-therapeutic-gard>



The Straits Times, 5 Feb 2016

Challenges

- Lack of understanding/acceptance
- Lack of communication
- Education
- Safety
- Quality
- Efficacy
- Resources
- Insufficient research
- Evidence based
- Cost effective
- Sustainability
- Collaboration among stake holders
- Interprofessional
- Patients' perspectives



How to get there?

How to get there?

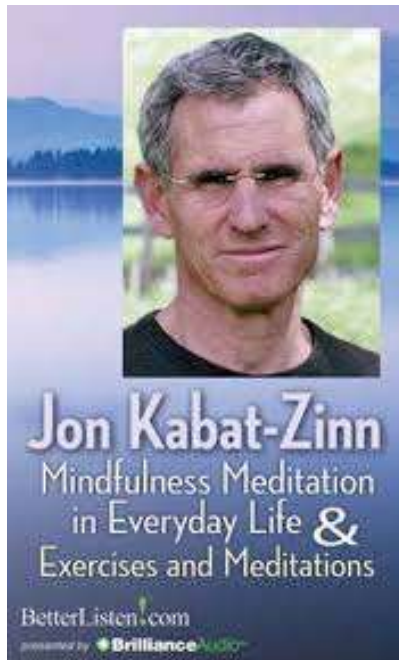
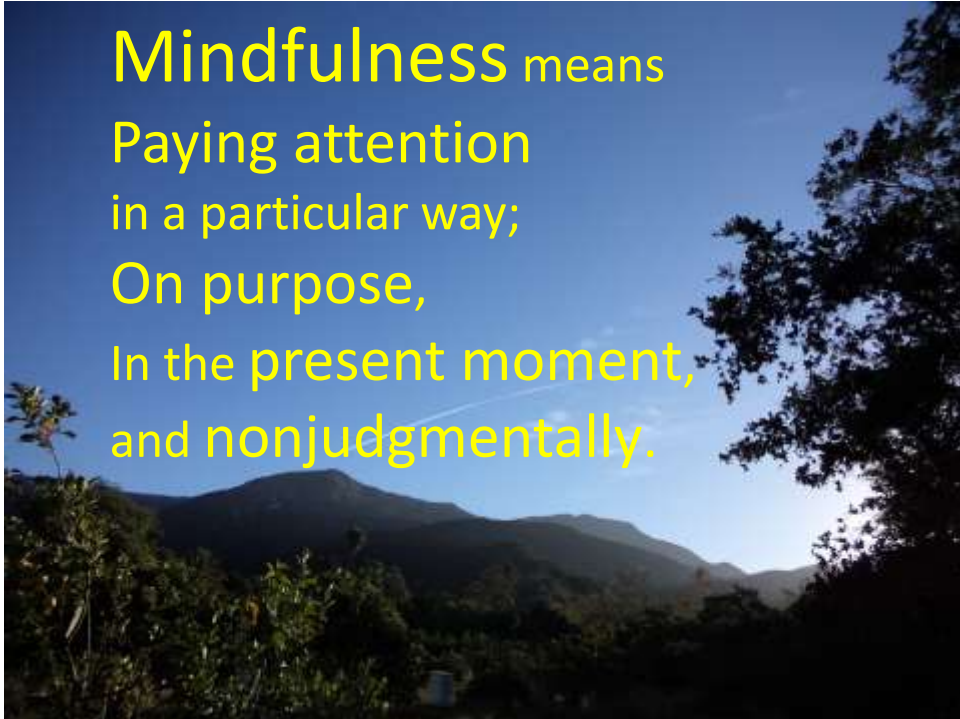
| | |
|-----------|---|
| Education | include in curricula, open minded, quality/safety/efficacy Interprofessional, public education |
| Research | resources, multidisciplinary, efficacy, safety, quality, quality of life, cost effectiveness, evidence based, quantitative, qualitative, patients' perceptions |
| Practice | resources, multidisciplinary, interprofessional efficacy, safety, quality, quality of life, cost effective, evidence based sustainable, accessible, patients' perceptions |
| Policy | need all the above new/optimised and sustainable model of healthcare Health promotion |

Report from Institute of Medicine's Global Forum on Innovation in Health Professional Education

- It is well-accepted that we have a **health care payment system that focuses on disease and does not reimburse for health professionals to focus on disease prevention, health, lifestyle issues and wellness**. Thus, both health professionals as individuals and the economics of health care must change to shift the focus from being a fractionalized, disease-based system and disease-based payment system to one that **focuses on collaborative, team-based, patient/person-centered care that emphasizes health, well-being and disease prevention**.

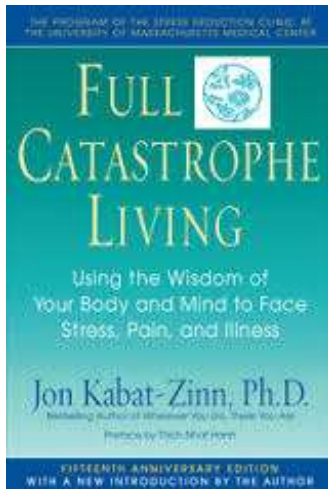
National Center for Integrative Primary Healthcare
<https://nciph.org/>

Mindfulness means
Paying attention
in a particular way;
On purpose,
In the present moment,
and nonjudgmentally.

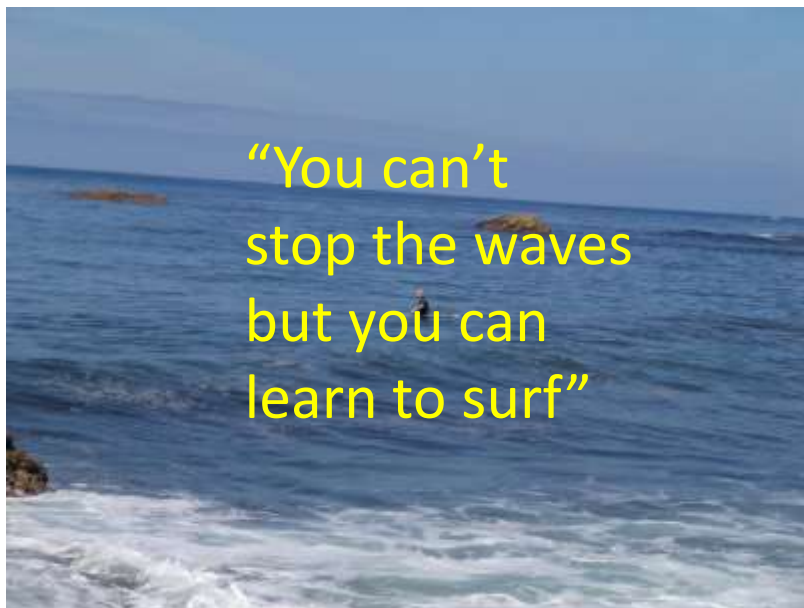


<http://www.umassmed.edu/cfm/about-us/people/2-meet-our-faculty/kabat-zinn-profile/>

Mindfulness Based Stress Reduction



| | |
|------------------------------------|---------------------------------|
| Anxiety | Gastro-intestinal (GI) Distress |
| Work, Family, and Financial Stress | Grief |
| Asthma | Headaches |
| Cancer | Heart Disease |
| Chronic Illness and Pain | High Blood Pressure |
| Depression | Panic Attacks |
| Eating Disturbances | Post-traumatic Stress (PTSD) |
| Fatigue | Skin Disorders |
| Fibromyalgia | Sleep Problems |



Jon Kabat-Zinn

Together, we can make a difference!

Thank you

Hwee-Ling Koh
phakohhl@nus.edu.sg