

Ethnobotany. Lecture 26

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Outline

- 1 Complementary and alternative medicine (CAM)
 - Introduction



Complementary and alternative medicine (CAM)

Introduction



CAMs

- Whole medical systems such as homeopathy, naturopathy, TCM, and Ayurveda
- Mind-body medicine such as meditation, prayer, mental healing, art therapy, music therapy, and dance therapy
- Biologically based practices such as dietary supplements, herbal supplements, and other scientifically unproven therapies such as shark cartilage
- Manipulative and Body-Based Practices such as spinal manipulation (both chiropractic and osteopathic) and massage
- Energy therapies such as qi gong, reiki, therapeutic touch, and electromagnetic therapy



Alternative approaches used plants

- Medical herbalism
- Homeopathy
- Antroposophical medicine
- Aromatherapy
- Flower remedy therapy
- Naturopathy
- Orhtomolecular medicine



Medical herbalism

- Based on pre-scientific traditions of European cultures
- Holistic approach, similar to Eastern practices



Conditions treated

- Normally, chronic conditions which are not treated well in common medicine
- Eczema, arthritis, depression, migraine, PMS and others



Differences from rational phytotherapy

- Typically, combination of 4–6 herbs (assumes synergy)
- Most of remedies are taken as tinctures
- There is a flow of information between phytotherapy and herbalism



Homeopathy

- Samuel Hahnemann (Germany, 1755–1843) founded homeopathy
- “Likes cures like”
- Always minimal dose and extremely high dilutions!
- One remedy at a time



Samuel Hahnemann (1755–1843)



Modern homeopathy

- They believe in stimulating of body's own "vital force"
- "Vital force" is strongly individual



Remedies

- Highly diluted (and poisonous when undiluted)
- 65% originates from plants



Evidence

- Despite of hundreds of trial, results are still controversial
- Some experiments on “water memory” provided the support for dilution theory, but scientific value of these experiments is also dubious



“Nature” publication of Benveniste group (1988)



Access

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Scientific Paper

Nature **333**, 816-818 (30 June 1988) | doi:10.1038/333816a0; Received 24 August 1987

Human basophil degranulation triggered by very dilute antiserum against IgE

E. Davenas, F. Beauvais, J. Amara*, M. Oberbaum, B. Robinzon†, A. Miadonnai‡, A. Tedeschi‡, B. Pomeranz§, P. Fortner§, P. Belon, J. Sainte-Laudy, B. Poitevin & J. Benveniste^{||}

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Anthroposophical medicine

- Rudolf Steiner (Germany, 1861–1925) founded anthroposophy and related medicine approach
- Three functional systems: sense-nervous, reproductive-metabolic and rhythmic
- Popular in Germany, Austria and other continental Western European countries



Rudolf Steiner (1861–1925)



Conditions treated

- The approach is therapeutic, but sometimes used for supportive treatments of serious diseases like cancers
- Several German hospitals practice anthroposophical medicine



Antroposophic medicines

- Normally are combinations of plant components (often diluted) and minerals
- Mistletoe from different trees is a source of common drug “Iscador”
- Plants should be specifically grown in accordance to anthroposophic “biodynamic farming”



Mistletoe, *Viscum album*, Santalaceae



Aromatherapy

- Rene-Maurice Gattefosse (French perfumer, 1881–1950) is a founder of aromatherapy
- Main idea is that essential oils could be used to provide general well-being
- Aromas are prescribed holistically, in terms of “energy” etc.



Conditions treated

- All conditions which require relaxation
- Skin diseases, different chronic disorders etc.

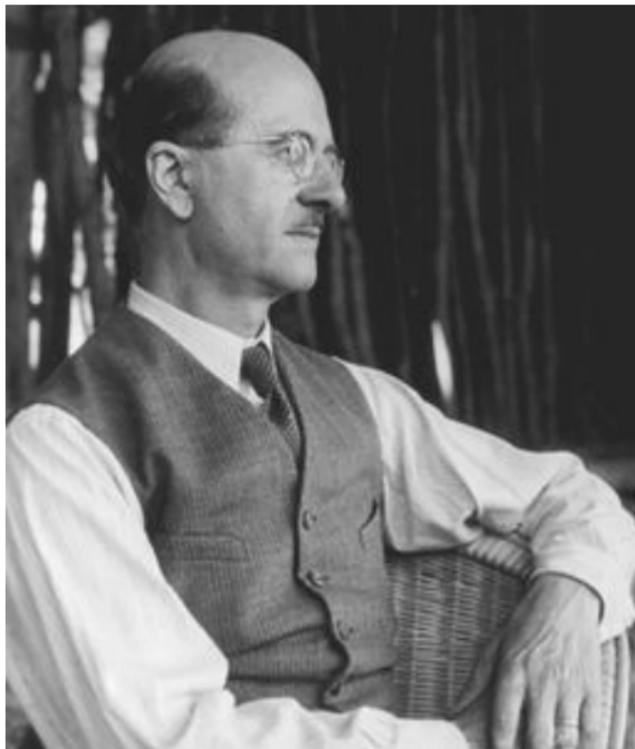


Aromatherapy medicines: essential oils

- Used in combinations
- Mostly by massage, but also by baths, inhalations, compresses and other external ways



Rene-Maurice Gattefosse (1881–1950)



Efficacy

- Sometimes work in relation with conventional phytotherapy
- However, most of uses were not proved scientifically



Flower remedy therapy

- Edward Bach (UK, 1886–1936) invented the idea of flower remedies
- Every remedy is a flower extract which is supposed to heal specific condition



Edward Bach (1886–1936)



Remedies

- Whole flowers which are dried and/or boiled to prepare tincture or water essence
- Single species are used in majority of cases



Efficacy

- Nothing has been proved scientifically
- Requires future research

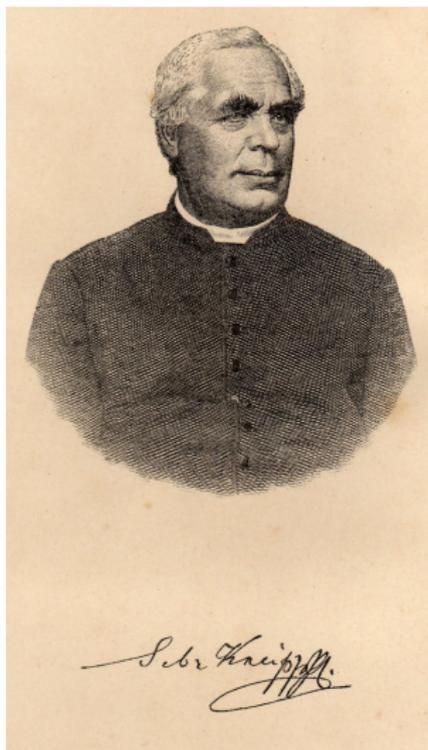


Naturopathy

- Founded by Sebastian Kneipp in 1850s
- Combination of “natural”, “organic” methods of medicine including herbalism
- Similarly to other practices, individualistic and holistic
- Includes, for example, hydrotherapy (Vincenz Priessnitz, ca. 1820) and cryotherapy



Sebastian Kneipp (1821–1897)



Orhtomolecular medicine

- Founded by Linus Pauling in 1960s
- In particular, it is a belief that over-large doses of some supplements (like vitamin C) may treat diseases



CAM in USA

- There are multiple accredited schools of CAM
- National Center for Complementary and Alternative Medicine focuses on research and integration of CAM techniques and practices



Summary

- Alternative medicine approaches are also widely using different herbal remedies. However, efficiency for most of these methods has not been scientifically proved



For Further Reading



A. Shipunov.

Ethnobotany [Electronic resource].

2011—onwards.

Mode of access:

http://ashipunov.info/shipunov/school/biol_310



M. Heinrich and others.

Fundamentals of pharmacognosy amd phytotherapy (selected chapters). [Electronic resource].

Churchill Livingstone, 2004.

Mode of access: http://ashipunov.info/shipunov/school/biol_310/heinrich2004_fund_pharm_part.djvu

Pages 184–196.

