



Klinikum rechts der Isar
Competence Center for
Complementary Medicine and
Naturopathy
Technische Universität
München, Germany



The status of research on CAM across the EU

Wolfgang Weidenhammer

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and alternative therapies for
patients today and tomorrow**”
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The status of research on CAM across the EU



Starting point

The status of CAM research in terms of quantity and quality

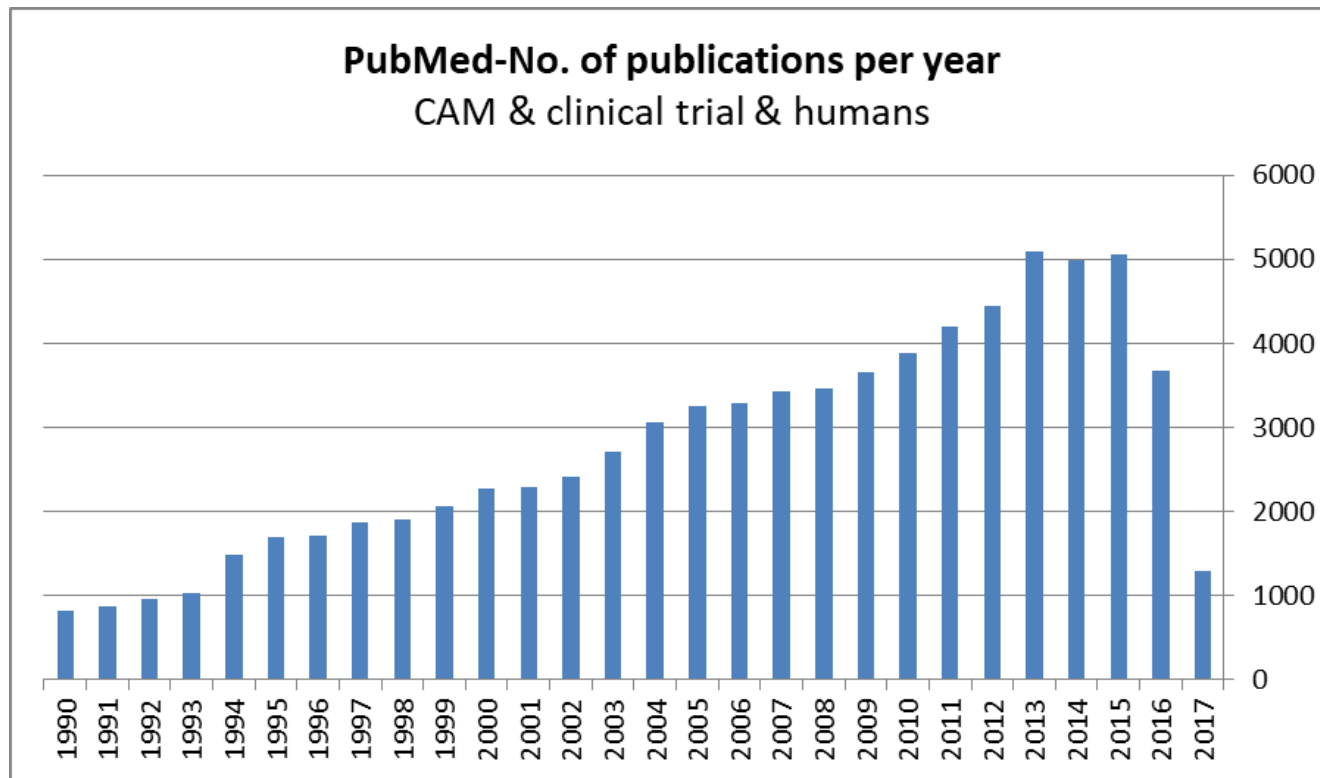
- Has been poor in the beginnings
- Has become much better in the past 25 years
- But still needs improvement in many ways



The status of research on CAM across the EU



Quantity of publications on clinical trials in CAM since 1990 (pubmed listed*)



*retrieved Sept 25,2017



Some issues when giving an outline of the status of CAM research

- Difficult to identify researchers / subject of research as European
- ‚CAM‘ means a number of different modalities used for a wide variety of medical conditions
- Complex interventions (interacting effects)
- Different targets (feasibility, effectiveness, safety, cost-effectiveness, efficacy, mechanism of action)
- Chronic and/or functional diseases (long-term treatment)
- Model validity (e.g. qualification of the therapist)
- Appropriate choice of control groups
- Often ‚soft‘ outcomes
- Patient plays an active role in treatment (see also patient-physician relationship)
- Traditional use (‚reversed pharmacology‘)



Example: Acupuncture

A comprehensive overview on evidence regarding effectiveness, safety and costs of acupuncture from 2017*

A total of 136 systematic reviews, including 27 Cochrane systematic reviews were included in this review, along with 3 network meta-analyses, 9 reviews of reviews and 20 other reviews.

The review covers 122 different medical conditions.

Meta-analyses were conducted for 62 of the non-Cochrane systematic reviews. This review includes pooled data from more than 1,000 randomised controlled trials.

*McDonald J, Janz S. The Acupuncture Evidence Project: A Comparative Literature Review (Revised edition). Brisbane: Australian Acupuncture and Chinese Medicine Association Ltd; 2017. <http://www.acupuncture.org.au>.



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Example: Acupuncture

A comprehensive overview on evidence regarding effectiveness, safety and costs of acupuncture from 2017

Evidence Level	Number of Conditions
Strong Evidence of effect	8
Moderate Evidence effect	38
Unclear/mixed evidence	71
Little or no evidence of effect	5
Total conditions with some evidence of effect (any level)	117
Total conditions reviewed	122



Example: Acupuncture

A comprehensive overview on evidence regarding effectiveness, safety and costs of acupuncture from 2017

Table 1. Conditions with strong evidence supporting the effectiveness of acupuncture

Reviews with consistent statistically significant positive effects and where authors have recommended the intervention. The quality of evidence is rated as moderate or high quality.

- | | |
|--|-----------------------------------|
| - Allergic rhinitis (perennial & seasonal) | - Knee osteoarthritis |
| - Chemotherapy-induced nausea and vomiting (with anti-emetics) | - Migraine prophylaxis |
| - Chronic low back pain | - Postoperative nausea & vomiting |
| - Headache (tension-type and chronic) | - Postoperative pain |



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A comprehensive overview on evidence regarding effectiveness, safety and costs of acupuncture from 2017

Table 2. Conditions with moderate evidence supporting the effectiveness of acupuncture	
Reviews reporting all individual RCTs or pooled effects across RCTs as positive, but the reviewers deeming the evidence insufficient to draw firm conclusions. The quality of evidence is rated as moderate or high quality.	
<ul style="list-style-type: none">- Acute low back pain- Acute stroke- Ambulatory anaesthesia- Anxiety- Aromatase-inhibitor-induced arthralgia- Asthma in adults- Back or pelvic pain during pregnancy- Cancer pain- Cancer-related fatigue- Constipation- Craniotomy anaesthesia- Depression (with antidepressants)- Dry eye- Hypertension (with medication)- Insomnia- Irritable bowel syndrome- Labour pain- Lateral elbow pain- Menopausal hot flushes	<ul style="list-style-type: none">- Modulating sensory perception thresholds- Neck pain- Obesity- Perimenopausal & postmenopausal insomnia- Plantar heel pain- Post-stroke insomnia- Post-stroke shoulder pain- Post-stroke spasticity- Post-traumatic stress disorder- Prostatitis pain/chronic pelvic pain syndrome- Recovery after colorectal cancer resection- Restless leg syndrome- Schizophrenia (with antipsychotics)- Sciatica- Shoulder impingement syndrome (early stage) (with exercise)- Shoulder pain- Smoking cessation (up to 3 months)- Stroke rehabilitation- Temporomandibular pain



Example: Acupuncture

A comprehensive overview on evidence regarding effectiveness, safety and costs of acupuncture from 2017

Table 4. Conditions with little or no evidence supporting the effectiveness of acupuncture

Reviews have consistently found little support for acupuncture. The quality of the evidence is consistently low or very low. Further research required.

- | | |
|---|--|
| <ul style="list-style-type: none">- Alcohol dependence- Cocaine addiction- Epilepsy | <ul style="list-style-type: none">- Nausea in pregnancy- Smoking cessation (more than 6 months) |
|---|--|



Example: Homeopathy

Clinical trials overview

By the end of 2014, 189 randomised controlled trials of homeopathy on 100 different medical conditions had been published in peer-reviewed journals:*)

Of these, 104 papers were placebo-controlled and were eligible for detailed review:

- 41% were positive (43 trials) – finding that homeopathy was effective
- 5% were negative (5 trials) – finding that homeopathy was ineffective
- 54% were inconclusive (56 trials)

*) <http://facultyofhomeopathy.org/research/>



CAMbrella – in a nutshell



Aims	to review the status quo of CAM from different perspectives in the EU and to provide a proposal for a CAM research roadmap
Impact	Research roadmap and network to enable sustainable and prioritised CAM research in the EU
Consortium	16 participants from 12 European countries plus one adjunct partner from Netherlands
Funding	max 1.5 m. € (FP7/2007-2013, GA No. 241951) Coordination action
Coordinator	Klinikum rechts der Isar, Techn. Univ. Munich, Competence Centre for Complement Med & Naturopathy; W Weidenhammer
Time frame	Jan 1, 2010 – Dec 31, 2012
Information	www.cambrella.eu ; Weidenhammer et al. Forsch Komplmed 2011;18:69-76; Walach and Weidenhammer (eds.), Forsch Komplmed 2012;19 (suppl 2).



CAMbrella – the task

from the Work programme of Call FP7-Health 2009



„In order to create the knowledge base concerning the **demands** for Complementary and Alternative Medicine (CAM) and the **prevalence of its use in Europe**, consensus on the **terminology of CAM** and the definition of respective CAM methods needs to be established.

The current state with respect to the **provider's perspective** as well as **needs and demands of the citizens** should be explored; the different **legal status** of CAM in EU Member States needs to be taken into account.

A **roadmap for future European research** in this area should be developed“.

*...complemented by the **Global perspective***



The status of research on CAM across the EU



Summarized:



- i) Mapping of the current situation of CAM in the EU
→ **Compiling existing information**
- ii) Developing a proposal for future CAM research
→ **Roadmap for future activities**
- iii) Building a sustainable network of European CAM institutions relevant for research
→ **Coordination action**



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Advisory Board

EPHA - European Public Health Association

ECCH - European Central Council of Homeopaths

EFCAM - European Forum for Complementary and Alternative Medicine

ECHAMP - European Coalition on Homeopathic and Anthroposophic Med. Products

ANME - Association of Natural Medicine in Europe

EICCAM - European Information Centre for Complementary and Alternative Medicine

ICMART - International Council of Medical Acupuncture and Related Techniques

ECH - European Committee for Homeopathy

EHTPA - European Herbal & Traditional Medicine Practitioners' Association

IVAA - International Federation of Anthroposophic Medical Associations

KB - Kneipp-Bund eV

ECPM - European council of doctors for plurality in medicine





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WP1: Terminology and Definitions of CAM Methods

Proposal for a pragmatic definition of CAM as a working document.



WP2: Legal status and regulations of CAM in Europe

Review of legal and regulatory status of CAM in the European Union plus 12 associated states disclosed marked heterogeneity.

WP3: Needs and Attitudes regarding CAM among EU Citizens

Citizens' core attitudes and needs regarding CAM cover 'the whole person', safety, impartial, reliable and trustworthy information, wider access to and choice of CAM as well as clear regulatory and educational frameworks.

WP4: CAM use – the patients' perspectives

Data available from less than ½ EU States, poor data quality, huge range in prevalence rates, need for coherent, comprehensive and rigorous prospective data collection.

WP5: CAM use – the provider's perspective

CAM provision in EU comprises health care practitioners and physicians with different healing attitudes, medical background, training, certification, and practise. Scientific data are rare, need public registries.

WP6: The global perspective

European public investment in CAM stands in contrast to the large investments found in Australia, Asia and North America. More support is needed for a broader research repertoire, including qualitative and comparative effectiveness research.



WP7: Roadmap for European CAM research



Methods

- literature review on CAM research methods
- Consideration of findings and conclusions from Work Packages 1-6
- expert workshop on CAM methods
- consensus meeting

Fischer FH et al. Key Issues in Clinical and Epidemiological Research in Complementary and Alternative Medicine – a Systematic Literature Review. *Forsch Komplementmed* 2012;19(suppl 2):51–60

Fischer FH et al. A Research Roadmap for Complementary and Alternative Medicine – What We Need to Know by 2020. *Forsch Komplementmed* 2014;21:e1–e16.

Fischer FH et al. High prevalence but limited evidence in complementary and alternative medicine: guidelines for future research. *BMC CAM* 2014, **14**:46.



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CAM research areas



Key Area 1: CAM prevalence in the EU

Key Area 2: Needs and attitudes of citizens, patients and providers

Key Area 3: CAM safety

Key Area 4: Comparative Effectiveness Research

Key Area 5: Meaning / Context Factors in CAM

Key Area 6: Models in CAM integration into health systems

Methodological considerations

- General research framework (e.g. mixed methods approach)
- Quantitative research methods / qualitative research
- Stakeholder involvement (especially patients)
- Selection of prioritized CAM modalities

Research infrastructure / networking / funding

- build sufficient research networks in Europe
- European CAM research coordination office to foster systematic communication between EU governments and researchers / stakeholders
- More public funding nationally and EU-wide



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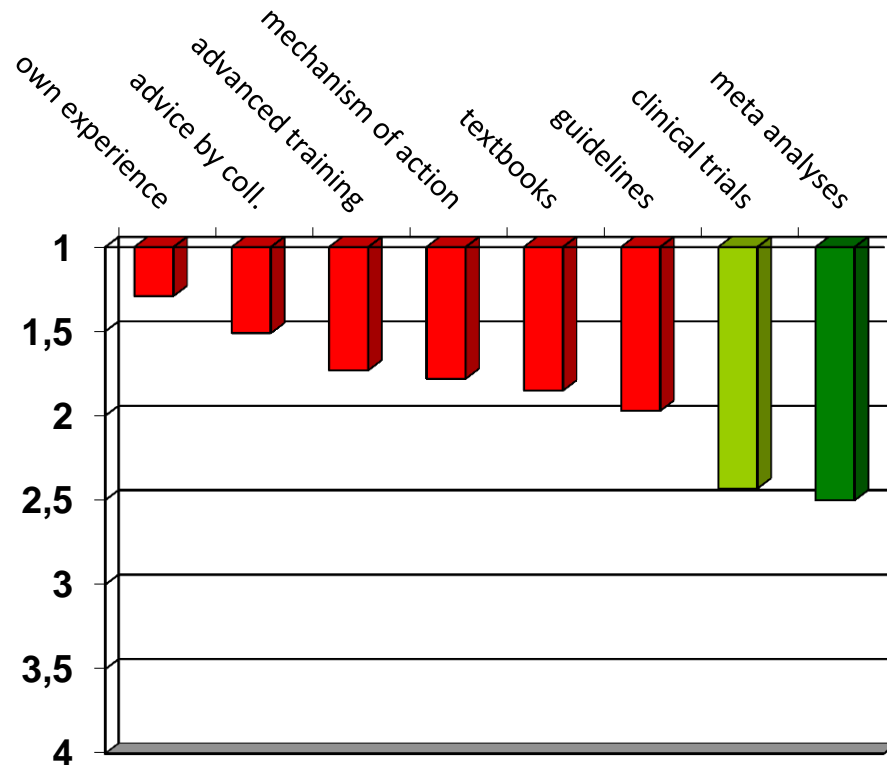


Gap between research and medical practice

How important is ... for your practical work? Results from a survey among physicians (n=436) attending continuing medical education events

Mean ratings (1=very important to 4=irrelevant)

Icsezer S, · Linde K:
Forsch Komplementmed 2008;
15:261–26





Evidence based medicine: what it is and what it isn't*

“Evidence based medicine is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients.

The practice of evidence based medicine means **integrating individual clinical expertise** with the **best available external clinical evidence from systematic research.**”

“ ... Evidence based medicine is not "cookbook" medicine. Because it requires a bottom up approach that integrates the **best external evidence with individual clinical expertise and patients' choice**, it cannot result in slavish, cookbook approaches to individual patient care.”

*Sackett DL et al. BMJ 1996;312(7023):71–72.



Final comment

“Such a strategy is required if complementary and traditional medicine is to shift from the marginal status it holds in most countries to having a significant role in national health care.

Political intent as well as **scientific** intent are needed to support such an agenda.

Ultimately, nothing would be considered complementary or alternative, orthodox or conventional. Rather, **all possible** contributions to health would be **evaluated for their promise and harnessed for the good of the public's health**”.

Bodeker G, Kronenberg F. A Public Health Agenda for Traditional, Complementary, and Alternative Medicine. American Journal of Public Health 2002;92(10):1582-91