Supplements, Complimentary and Alternative Medicine
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SCAM
Disclaimer

Although some of the ideas presented in this presentation are mine, many are not. I wish they were. I have tried to give credit to all who expressed an idea before I did. I apologize in advance for any ideas I may have used without proper attribution.
Disclaimer

Although I am a physician, I am not your physician. In fact, I barely know most of you, if I know you at all. My talk is meant to provide general information and to help you think about medicine as it is practiced today and was in the past.
S.C.A.M.

• No one definition
S.C.A.M.

- No one definition
- Some used by MDs and DOs
S.C.A.M.

• No one definition
• Some used by MDs and DOs
• Major medical centers
S.C.A.M.

- No one definition
- Some used by MDs and DOs
- Major medical centers
- 38% adults
S.C.A.M.

- No one definition
- Some used by MDs and DOs
- Major medical centers
- 38% adults
- 12% children
Traditional Alt. Med.

• Acupuncture
• Ayurveda
• Homeopathy
• Naturopathy
• Chinese or Oriental Medicine
Body

- Chiropractic Medicine
- Osteopathic Medicine
- Massage
- Body Movement
- Tai chi
- Yoga

Hopkinsmedicine.org
Dietary and Herbs

• Dietary Supplements
• Herbal Medicine
• Nutrition/Diet
External Energy

• Electromagnetic Therapy
• Biofeedback
• Hypnosis
• Reiki (?)
Mind

• Meditation
• Biofeedback
• Hypnosis
Senses

• Art, dance, and music
• Visualization and guided therapy
10 most common complementary health approaches among adults—2012

- Natural Products*: 17.7%
- Deep Breathing: 10.9%
- Yoga, Tai Chi, or Qi Gong: 10.1%
- Chiropractic or Osteopathic Manipulation: 8.4%
- Meditation: 8.0%
- Massage: 6.9%
- Special Diets: 3.0%
- Homeopathy: 2.2%
- Progressive Relaxation: 2.1%
- Guided Imagery: 1.7%

*Dietary supplements other than vitamins and minerals.

Supplements

- FDA – Not a food nor a drug
Supplements

• FDA – Not a food nor a drug
• Herbs and dietary supplements
Supplements

- FDA – Not a food nor a drug
- Herbs and dietary supplements –
- 20% of liver injuries – 2013
- 7% in 2004

World Journal of Hepatology, 7/15
Supplements

• FDA – Not a food nor a drug
• Herbs and dietary supplements –
• 20% of liver injuries – 2013
• 7% in 2004
• 40% of Americans use

World Journal of Hepatology, 7/15
Supplements

• Common Uses
  – Weight loss
  – Body building
Supplements

• Side Effects
  – Jaundice
  – Itching
  – Liver inflammation
  – Liver transplant
  – Death

WebMD, 5/23/12
1. No specific claim to diagnose, treat, cure or prevent any illness.
FDA Miranda

1. No specific claim to diagnose, treat, cure or prevent any illness.
2. “This statement has not been evaluated by the FDA.”
FDA Miranda

1. No specific claim to diagnose, treat, cure or prevent any illness.
2. “This statement has not been evaluated by the FDA.”
3. Not contain any FDA-regulated drug
Liver Offenders

- Green tea extracts
- Anabolic steroids
- Pyrolizidine alkaloids (Comfrey)
- Flavocoxid
- Some Chinese medicines
Love Your Liver

- LiverTox.nih.gov
  - Information
Love Your Liver

• LiverTox.nih.gov
  – Information
  – Medicines, herbals and supplements
Love Your Liver

- LiverTox.nih.gov
  - Information
  - Medicines, herbals and supplements
  - Case registry

www.livertox.nih.gov
Love Your Liver

1. Avoid liver offenders
Love Your Liver

1. Avoid liver offenders
2. Know what’s in it
Love Your Liver

1. Avoid liver offenders
2. Know what’s in it
3. Check with LiverTox

Everyday Health
Love Your Liver

1. Avoid liver offenders
2. Know what’s in it
3. Check with LiverTox
4. Read the label

Everyday Health
Love Your Liver

1. Avoid liver offenders
2. Know what’s in it
3. Check with LiverTox
4. Don’t trust the label

Everyday Health
Love Your Liver

5. Discuss with your doctor

Everyday Health
Love Your Liver

5. Discuss with your doctor

6. Look for drug contraindications
Love Your Liver

5. Discuss with your doctor
6. Look for drug contraindications
7. Limit how many you take
What About the FDA

Pure Food and Drug Act of 1906

- Governed USP and National Formulary &
- Any drug claimed to cure, mitigate or prevent disease
- Label contents accurate

New England Journal of Medicine, 1/21/16
What About the FDA

Why Not Cover Homeopathic Drugs?

- Administered by clinicians
- Focused efforts dangerous/quack remedies containing cocaine, heroin, chloroform and others

New England Journal of Medicine, 1/21/16
What About the FDA

1938 Food, Drug and Cosmetic Act

• Focused on safety rather than efficacy
• Homeopathic drugs considered safe since on HPUS
• HPUS listing → met standards

New England Journal of Medicine, 1/21/16
What About the FDA

1938 Food, Drug and Cosmetic Act

- Senator Royal Copeland (D-NY)
- Morris Fishbein, MD

New England Journal of Medicine, 1/21/16
What About the FDA

1962 Kafauver-Harris Amendments

• Mandate efficacy of drugs thru well-controlled investigations

• Excluded homeopathic remedies

• To be reviewed “at a latter date”

New England Journal of Medicine, 1/21/16
What About the FDA

1988 Compliance Policy Guide

• Labeling-ingredients and use
• By prescription if for serious conditions
• OTC if for self-limiting conditions
Dr. Samuel Hahnemann
1775-1843
Laws of Homeopathy

• Laws of Similars
  “Similia similibus curantur”
Laws of Homeopathy

• Laws of Similars
  “Similia similibus curanur”

• The Principle of Minimum Dose
Laws of Homeopathy

• Laws of Similars
  “Similia similibus curanur”

• The Principle of Minimum Dose

• Succussion – Potentiation
Laws of Homeopathy

• Laws of Similars
  “Similia similibus curantur”
• The Principle of Minimum Dose
• Succussion – Potentiation
• Water has memory
Law of Similars

• Like Cures Like
Law of Similars

- Like Cures Like
- Cinchona - Malaria
Law of Similars

• Like Cures Like
• Cinchona - Malaria
• Mercury - Syphilis
Dilution

• Lessen strength to prevent toxicity
Dilution

• Lessen strength to prevent toxicity
• Process – dilute and succuss
Dilution

• Lessen strength to prevent toxicity
• Process – dilute and succuss
• Repeat
Dilution

• Lessen strength to prevent toxicity
• Process – dilute and succuss
• Repeat
• X and C
Dilution

- X Dilution
  1 drop of remedy in 9 drops of water
Dilution

- **X Dilution**
  1 drop of remedy in 9 drops of water

- **C Dilution**
  1 drop of remedy in 99 drops of water
Dilution

- **10X** - Repeat process 10 times
  1 drop in 10,000,000,000 drops

- **30C** – Repeat process 30 times
  1 drop in 1,000,000,000,000,000,000,000,000,000 drops
Potentiation

• Succussion – Jarring shaking of substance
Potentiation

- Succussion – Jarring shaking of substance
- Done after each dilution
Potentiation

• Succussion – Jarring shaking of substance
• Done after each dilution
• Removes toxic effects
Potentiation

• Succussion – Jarring shaking of substance
• Done after each dilution
• Removes toxic effects
• Amplifies healing effects
Potentiation

• How it Works
  – Mystery
Potentiation

• How it Works
  – Mystery
  – Imprints energetic information from the original substance onto the diluting liquid
Potentiation

This creates tiny new structures (nanostructures) which are the ‘active ingredient’ and remain present even when the sample has been diluted many, many times.”
Water Memory

- Dilution yields solutions with not one molecule of original substance
Water Memory

• Dilution yields solutions with not one molecule of original substance
• Water molecules “remember” what exposed to
Water Memory

• Dilution yields solutions with not one molecule of original substance
• Water molecules “remember” what exposed to
• What else does water “remember?”
Provings - Goal

To determine which homeopathic preparation works for which symptoms
Provings - Hahnemann

• Subject – Self, family and friends
• First use full strength
• Diluted
• Subjects recorded how they felt
• Gathered info → treatments
Reiki

History

• Ancient wisdom from
  –Indian Buddhism
Reiki

History

• Ancient wisdom from
  – Indian Buddhism
  – Jesus
Reiki

History

• Ancient wisdom from
  – Indian Buddhism
  – Jesus
  – Ancient civilization of Mu
Reiki

History

- Ancient wisdom from
  - Indian Buddhism
  - Jesus
  - Ancient civilization of Mu
  - Atlantis
Reiki

History

• Quest to heal like Jesus
• Dr. Makao Usui
• Dr. Hayashi
• Madam Takata
Reiki

A non-physical healing energy made up of life force energy that is guided by the Higher Intelligence, or spiritually guided life force energy.
Reiki

• Meditation
• Universal Life Force
• No Dogma
• No Religious Belief
Universal Life Force

• Surrounds total body
• Knows areas that need healing
• Energy flows
• Healer must be relaxed or energy flows to healer
Universal Life Force

• The source or cause of health comes from the Ki that flows through and around the individual rather than from the functional condition of the physical organs and tissues.
Universal Life Force

• It is Ki that animates the physical organs and tissues as it flows through them and therefore is responsible for creating a healthy condition.
Universal Life Force

• If the flow of Ki is disrupted, the physical organs and tissues will be adversely affected. Therefore, it is a disruption in the flow of Ki that is the main cause of illness.
Training

• Not taught – transferred
• Use what healer feels is the best treatment for the person being healed
Summary

• Life force energy
• Disruption in areas diseased
• Smoothed by healer
• No protocols
• No diagnostic criteria
Why Do I Feel Better?

– Placebo
Why Do I Feel Better?

– Placebo
– Real Dx/Real Cure
Why Do I Feel Better?

– Placebo
– Real Dx/Real Cure
– Natural Course of Disease
Why Do I Feel Better?

– Placebo
– Real Dx/Real Cure
– Natural Course of Disease
– Confirmation Bias
Why Do I Get Better?

- Subjective vs. Objective
- Valid Diagnosis
- Real Cure
- Placebo
- Natural Course of Disease
- Confirmation Bias
Ethical Issues

Delaying/Deferring Treatment
Immunizations
Serious diseases
Impact on others
Ethical Issues

Cost

Financial Sacrifice
Divert funds from other necessities
Ethical Issues

Safety Issues
Product contamination
Interactions
Side effects
Ethical Issues

Truthfulness
Lying
Taking away hope
Ethical Issues

Anti-Science Attitude
Sorting It All Out

• Studies
• Practice Protocols
• Admit Mistakes
• Cures Everything
Does It Work?

- Feel Better
- Scientifically Make Sense
- Medically Make Sense
Learn More

• Skeptics Guide to the Universe
• Skeptoid
• Society for Science-Based Medicine
• More or Less
• Skepticality
Learn More

- www.theskepticsguide.org
- www.skeptoid.org
- www.skeptiod.com
- www.sfsbm.org
- www.skeptic.org
Learn More

• YouTube
  – Harriet Hall: Science Based Medicine

• theness.com/neurologicablog/