NONPHARMACOLOGIC TREATMENTS FOR MENOPAUSE-ASSOCIATED VASOMOTOR SYMPTOMS

Karen M. Goldstein MD, MSPH
Remy R. Coeytaux MD, PhD
Megan Shepherd-Banigan PhD
John W. Williams Jr. MD, MHSc (Director)

ESP Center
Durham VA Healthcare System
Durham, NC

Full-length report available on ESP website:
http://www.hsrd.research.va.gov/publications/esp/reports.cfm

December 2016

Acknowledgements

Co-authors/Collaborators

- Adam P. Goode, DPT, PhD
- Jennifer R. McDuffie, PhD
- Deanna Befus, BSN
- Soheir Adam, MD
- Varsha Masilamani, MBBS
- Megan Van Noord, MSIS

Research Associates

- Avishek Nagi, MS
- Liz Wing, MA

Technical Expert Panel/Reviewers

- Veronica Ades, MD MPH
- Nancy Avis, PhD
- Lori Bastian, MD, MPH
- Margery Gass, MD
- Tracey Gaudet, MD

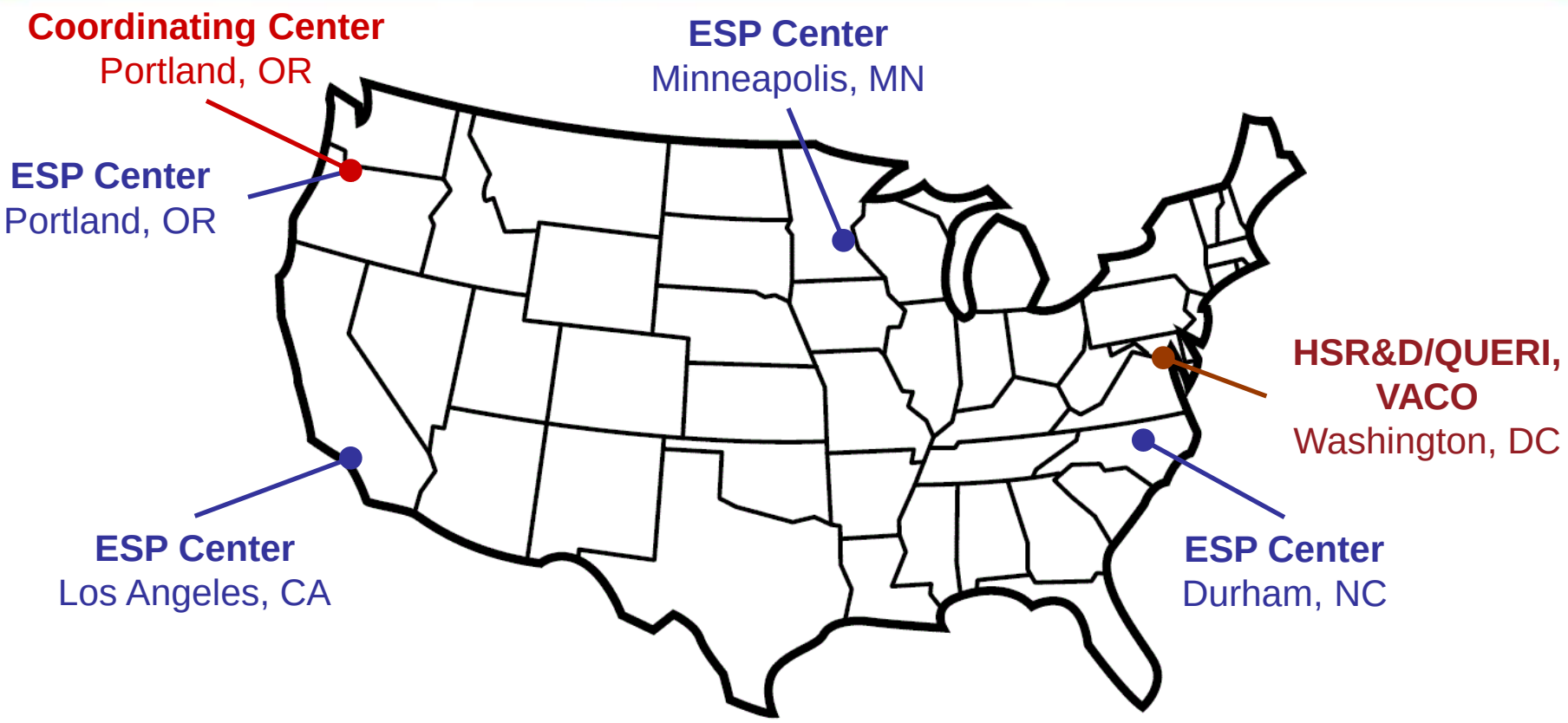
Stakeholders

- Laurie Zephyrin, MD
- Jodie Katon, PhD

Disclosure

This report is based on research conducted by the Evidence-based Synthesis Program (ESP) Center located at the Durham Healthcare System Durham, NC funded by the Department of Veterans Affairs, Veterans Health Administration, Office of Research and Development, Quality Enhancement Research Initiative. The findings and conclusions in this document are those of the author(s) who are responsible for its contents; the findings and conclusions do not necessarily represent the views of the Department of Veterans Affairs or the United States government. Therefore, no statement in this article should be construed as an official position of the Department of Veterans Affairs. No investigators have any affiliations or financial involvement (*eg*, employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties) that conflict with material presented in the report.

Evidence-based Synthesis Program Centers



Please tell us how you spend the majority of your workweek?

a) Primary care clinic/CBOC
b) Women's Health Clinic
c) Emergency room/in-patient setting
d) Research
e) Other

POLL QUESTION

Vasomotor Symptoms

- Hot flashes/Night sweats
- 80% women
- Median duration over 7 years
- Impact:
  - Physical
  - Psychological
  - Social
  - Healthcare utilization

Avis. 2015

hrallen.blogspot.com

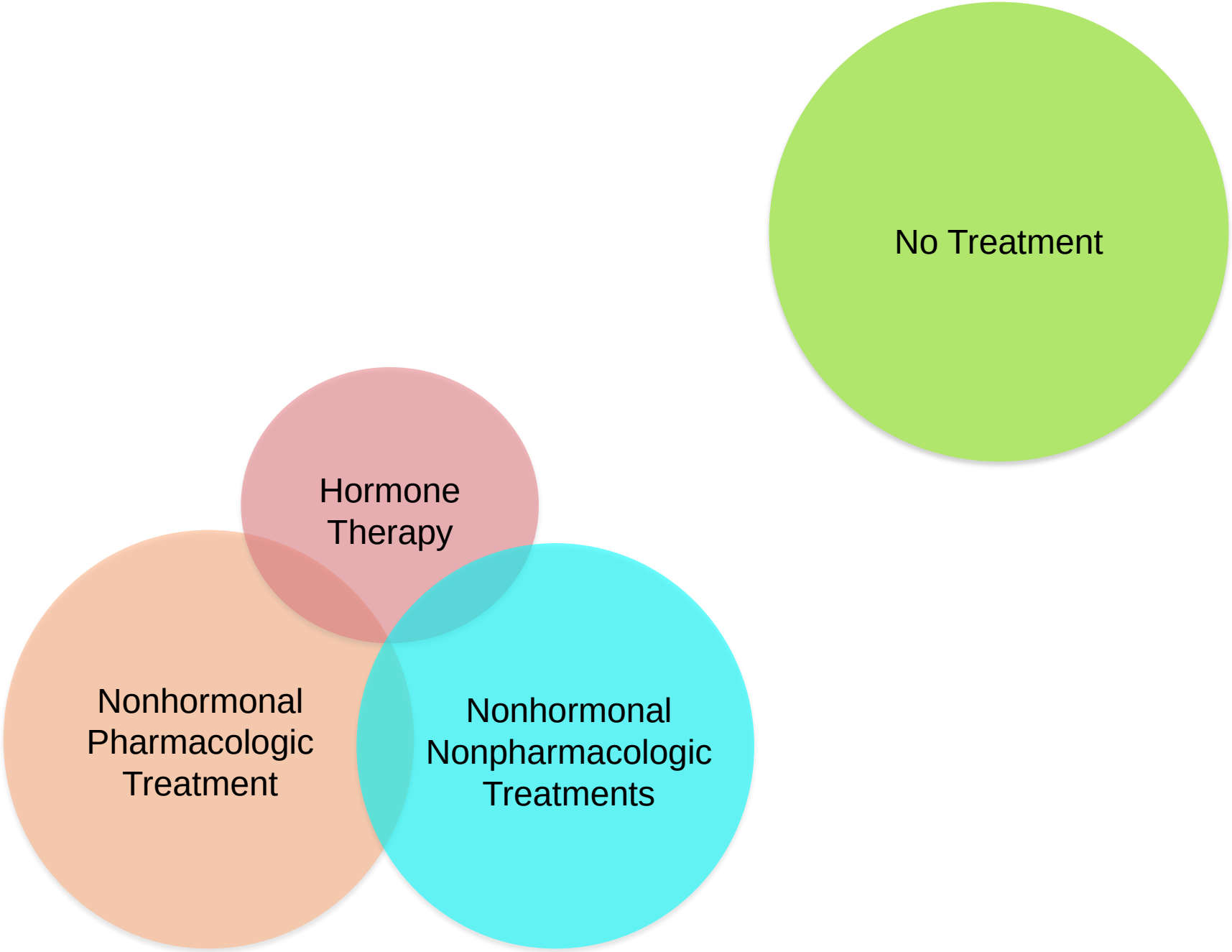
Age distribution of women Veteran patients, FY01 and FY10

Frayne et al. Sourcebook 2. 2012

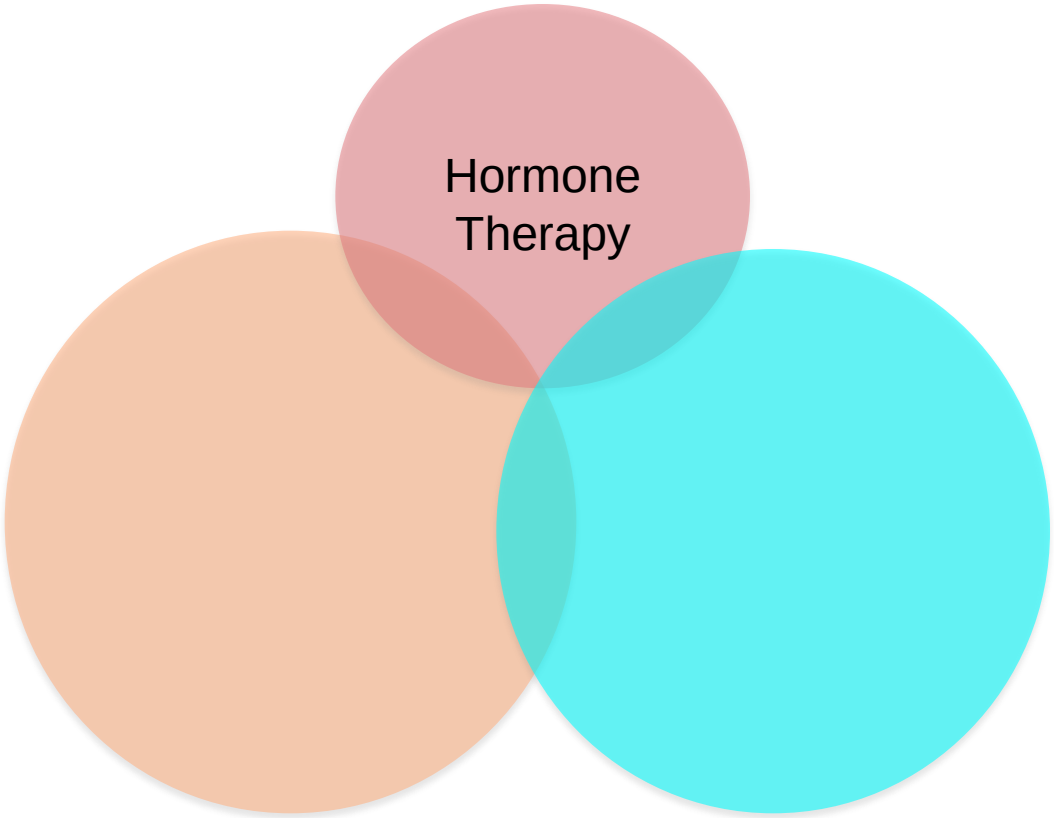
Women Veterans are twice as likely as civilian women to be prescribed hormone therapy

- 10.3% in FY 2009

Gerber JGIM 2015

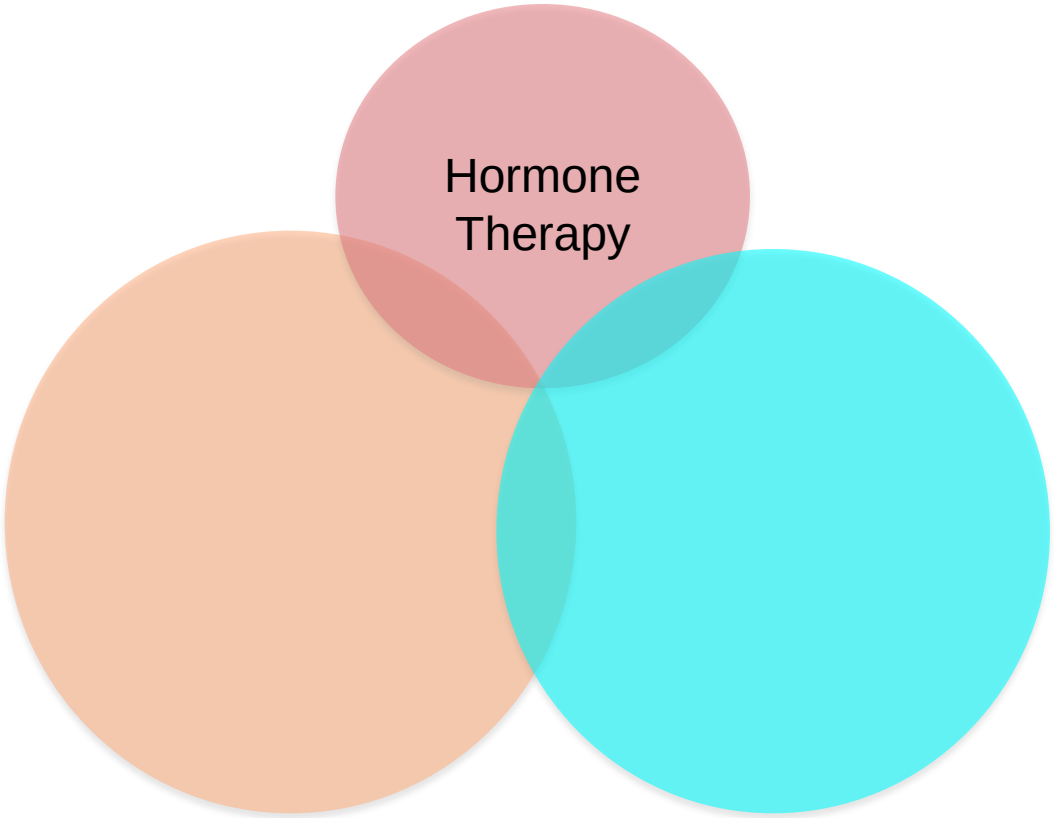

No Treatment
Hormone Therapy
Nonhormonal Pharmacologic Treatment
Nonhormonal Nonpharmacologic Treatments

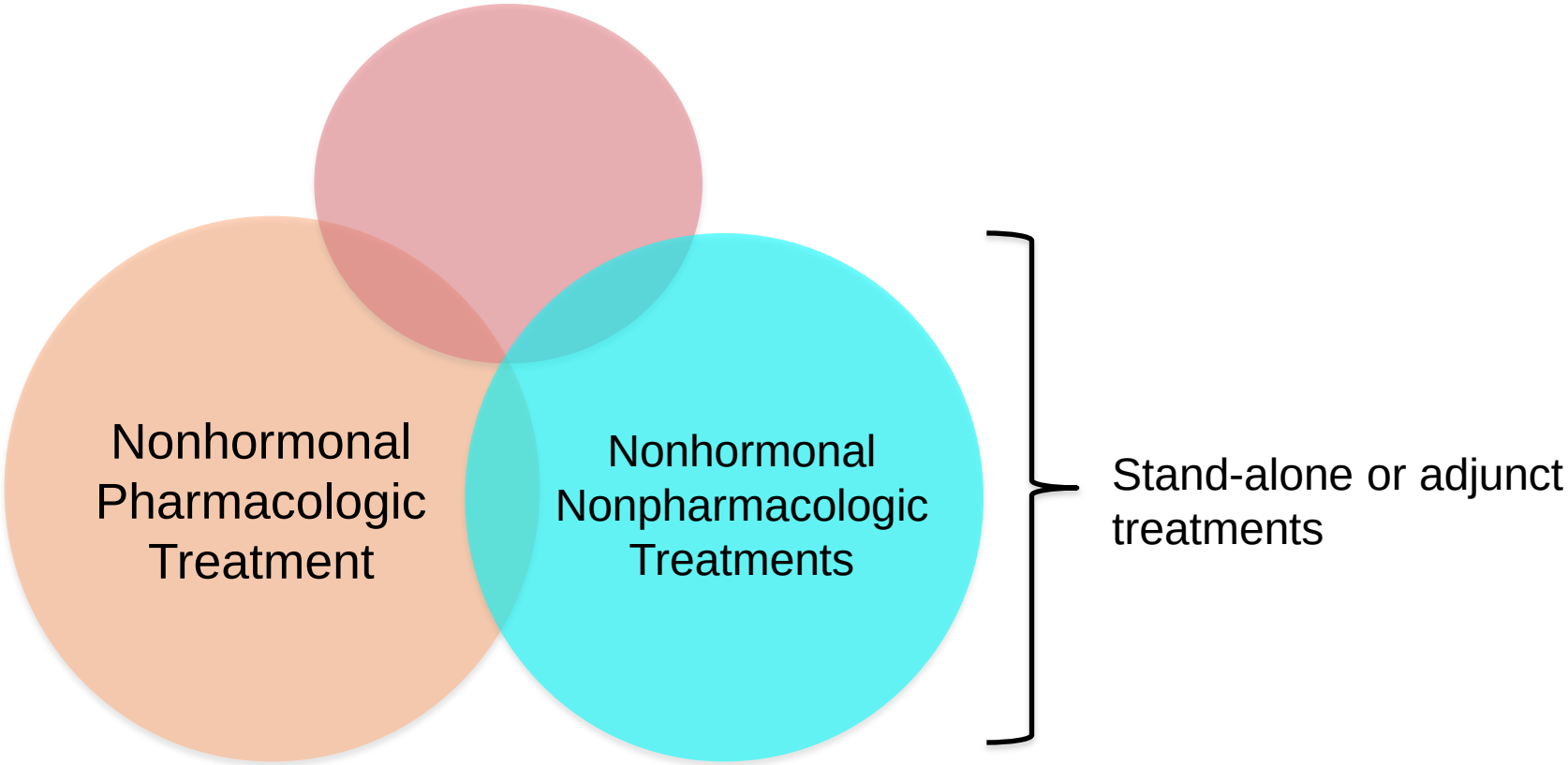
- Most effective treatment
- Women with bothersome VMS, aged <60 and <10 years since menopause
- Balance risks/benefits



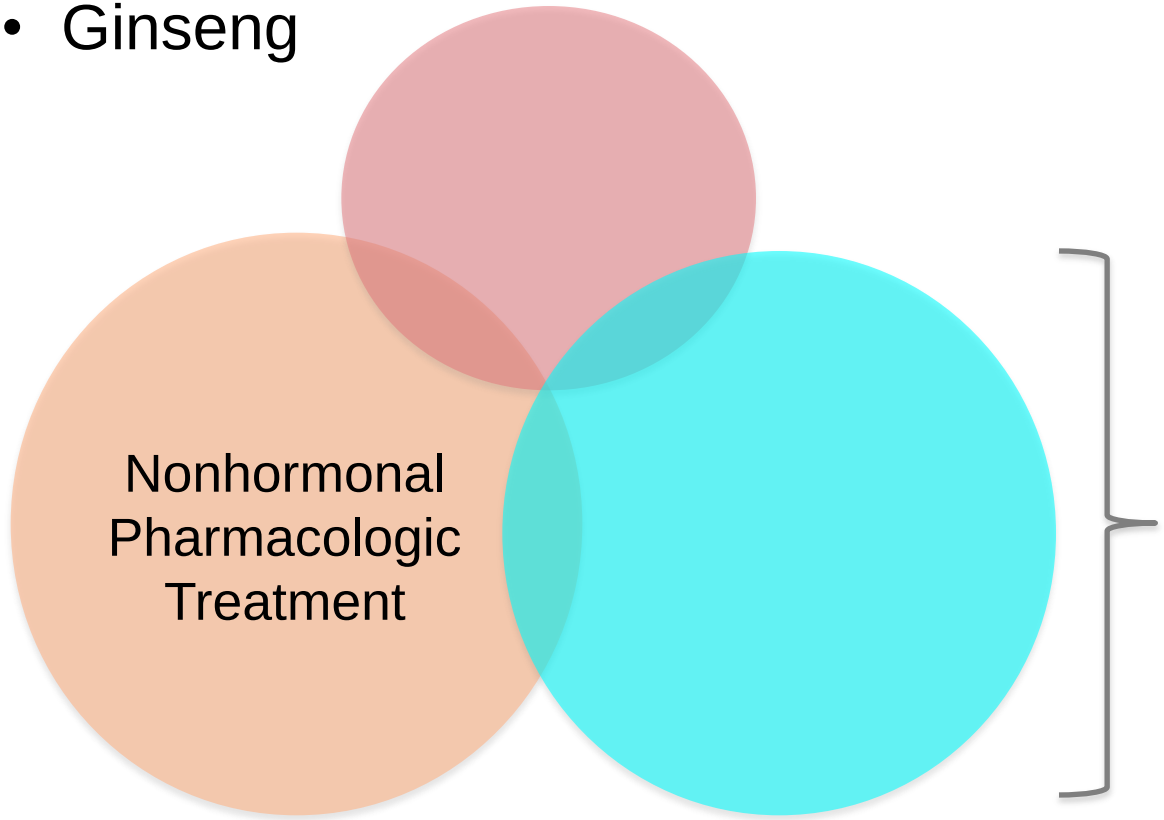
Stuenkel. 2015; ACOG 2014

CURE ALL! → **Evil!!** → Maybe ok?




Nonhormonal Pharmacologic Treatment
Nonhormonal Nonpharmacologic Treatments
Stand-alone or adjunct treatments

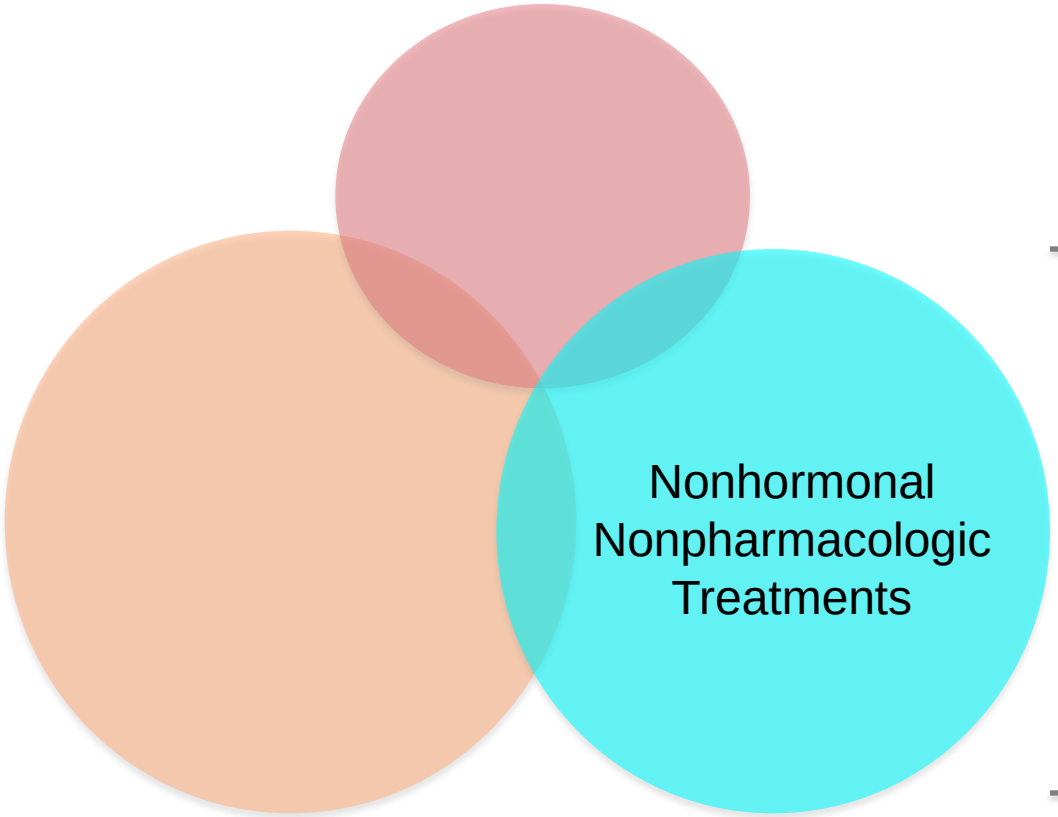
- SSRI/SNRI
- Gabapentin
- Isoflavones
- Black Cohosh
- Ginseng



Stand-alone or adjunct treatments

Grant et al. AHRQ. 2015

- Mind/body practices
  - Yoga
  - Tai chi
- Meditation
- Structured exercise
- Acupuncture



Stand-alone or adjunct treatments

Treatment of Symptoms of the Menopause: An Endocrine Society Clinical Practice Guideline

Cynthia A. Stuenkel, Susan R. Davis, Anne Gompel, Mary Ann Lumsden, M. Hassan Murad, JoAnn V. Pinkerton, and Richard J. Santen

University of California, San Diego, Endocrine/Metabolism (C.A.S.), La Jolla, California 92093; Monash University, School of Public Health and Preventive Medicine (S.R.D.), Melbourne 03004, Australia; Université Paris Descartes, Hôpitaux Universitaires Port Royal-Cochin Unit de Gynécologie Endocrnienne (A.G.), Paris 75014, France; University of Glasgow S
Scotland; Mayo Clinic, Division of Preventive Medici
of Virginia, Obstetrics and Gynecology (J.V.P.), Char
Health System (R.J.S.), Charlottesville, Virginia 2290

The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

PRACTICE BULLETIN

CLINICAL MANAGEMENT GUIDELINES FOR OBSTETRICIAN–GYNECOLOGISTS

NUMBER 141, JANUARY 2014

(Replaces Practice Bulletin Number 28, June 2001)
(See also Committee Opinion Number 565, Committee Opinion Number 556)

Menopause: The Journal of The North American Menopa
Vol. 22, No. 11, pp. 000-000
DOI: 10.1097/GME.0000000000000546

POSITION STATEMENT

Nonhormonal management of menopause-associated vasomotor symptoms: 2015 position statement of The North American Menopause Society

Perceptions of Providers and Administrators in the Veterans Health Administration Regarding Complementary and Alternative Medicine

Carol E. Fletcher, PhD, RN, Allison R. Mitchinson, MPH, NCTMB,* Erika L. Trumble, MPH,* Daniel B. Hinshaw, MD, FACS,* and Jeffery A. Dusek, PhD†*

Med Care 2014; 52: S91-S96

A Factor Analysis and Exploration of Attitudes and Beliefs Toward Complementary and Conventional Medicine in Veterans

Lisa M. Betthauser, MA, MBA,† Lisa A. Brenner, PhD,*‡ Jeri E. Forster, PhD,*§ Trisha A. Hostetter, MPH,* Alexandra L. Schneider, BA,* and Theresa D. Hernández, PhD*‖*

Med Care 2014; 52: S50-S56.

Key Question

In women with vasomotor symptoms (VMS) that are associated with perimenopause or postmenopause, what are the effects on VMS, health-related quality of life, and adverse events of the following nonpharmacologic, nonhormonal interventions:

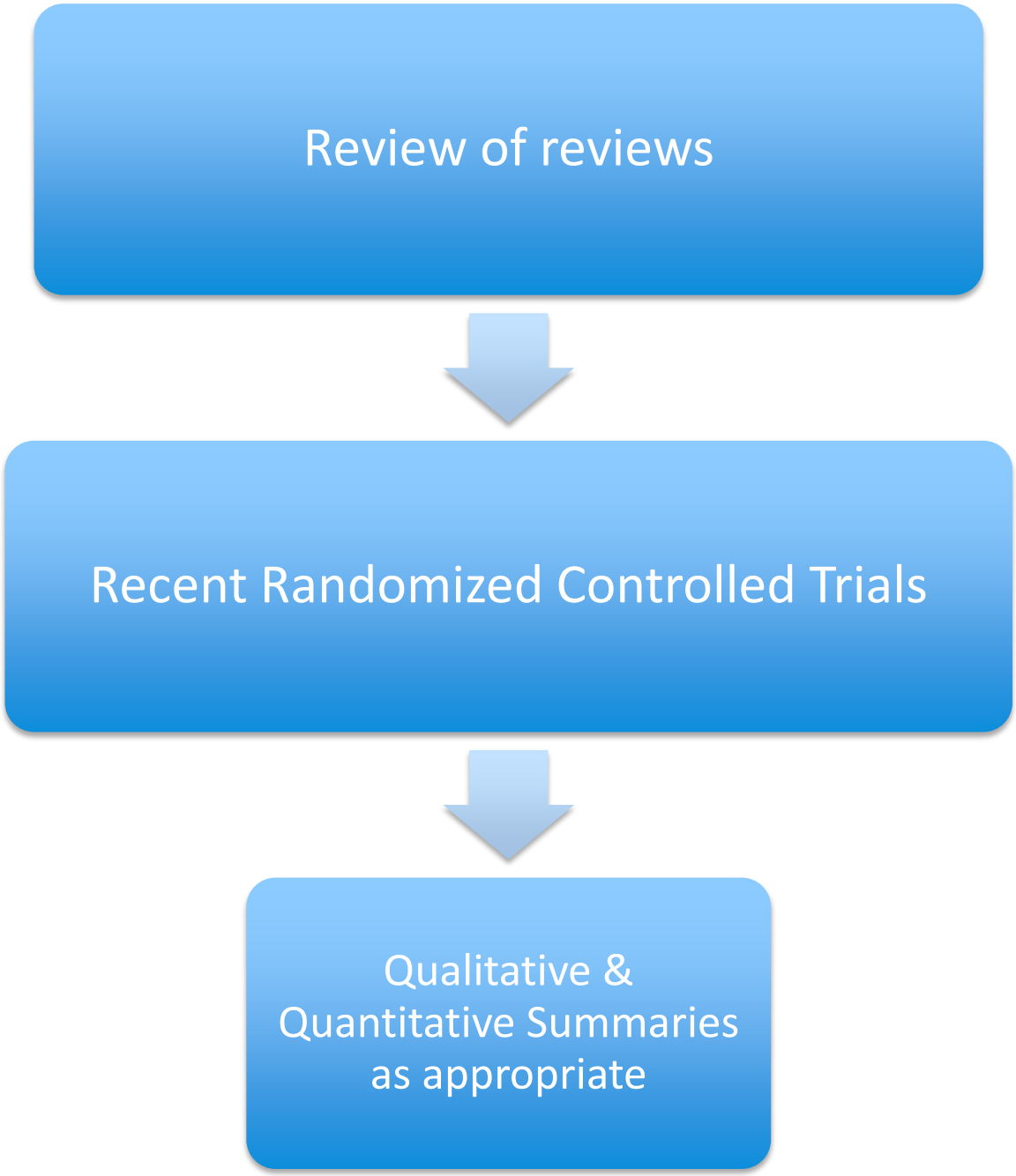
- **Yoga, tai chi, and qigong**
- **Acupuncture**
- **Relaxation, hypnosis, meditation, and mindfulness**
- **Structured exercise**

Nonhormonal
Nonpharmacologic
Treatments

Poll Question

- Which of the following treatments are available to Veterans at your local facility (choose all that apply)?
  - Acupuncture
  - Relaxation or meditation training
  - Yoga
  - Structured exercise
  - I don’t know

METHODS


Review of reviews
Recent Randomized Controlled Trials
Qualitative &
Quantitative Summaries
as appropriate

Grouped systematic reviews (SRs) and new Randomized Controlled Trials (RCTs) by intervention type

Prioritized highest-quality SRs

Graded quality of SRs/RCTs

Rated strength of evidence

Primary Outcomes:

1) Vasomotor symptoms
2) Quality of life (QoL)

Study characteristic	Eligibility Criteria
Population	Peri/postmenopausal women with bothersome VMS
Interventions	Acupuncture Yoga, tai chi, qigong Structured exercise Relaxation, hypnosis and meditation
Comparators	Any inactive or active control
Outcomes	Frequency/severity of VMS Overall Quality of Life (QOL), or Menopause-specific QOL
Timing	SRs: as specified by authors RCTs: outcomes assessed >60 days after treatment assignment
Setting	Outpatient or community setting

Goldstein *et al. Systematic Reviews* (2016) 5:56
DOI 10.1186/s13643-016-0232-6

Systematic Reviews

PROTOCOL

Open Access

Nonpharmacologic, nonherbal management of menopause-associated vasomotor symptoms: an umbrella systematic review (protocol)

Karen M. Goldstein[1,2*], Jennifer R. McDuffie[1,2], Megan Shepherd-Banigan[1], Deanna Befus[3], Remy R. Coeytaux[4], Megan G. Van Noord[5], Adam P. Goode[4,6], Varsha Masilamani[1], Soheir Adam[7], Avishek Nagi[1] and John W. Williams Jr[1,2]

RESULTS

Yoga, tai chi, qigong

Yoga—a spiritual and ascetic Hindu discipline, including breath control, simple meditation, and specific bodily postures, that is practiced for health and relaxation

Tai chi—a Chinese martial art and form of stylized, meditative exercise characterized by slow circular and stretching movements and positions of bodily balance

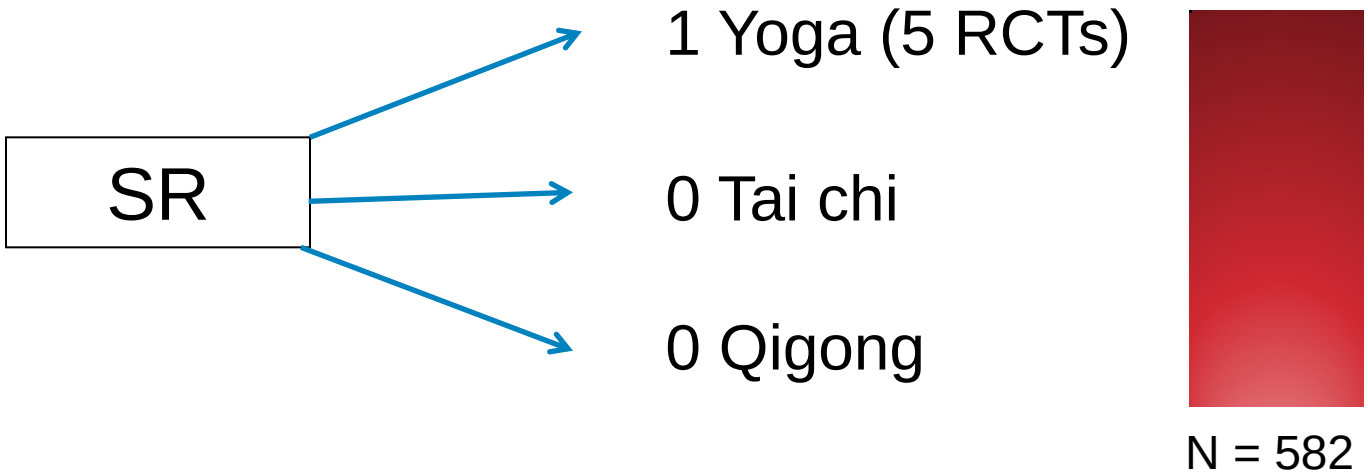
Qigong—an ancient Chinese health care system that integrates physical postures, breathing techniques and focused intention

Yoga, tai chi, qigong

Yoga—a spiritual and ascetic Hindu discipline, including breath control, simple meditation, and specific bodily postures, that is practiced for health and relaxation

- Relieves conditions that may affect women in menopausal transition: QoL, anxiety, sleep disturbances
- More commonly used by women than men
- Used by older adults

Yoga, tai chi, qigong



Yoga, tai chi, qigong

SR

1 Yoga (5 RCTs)

0 Tai chi

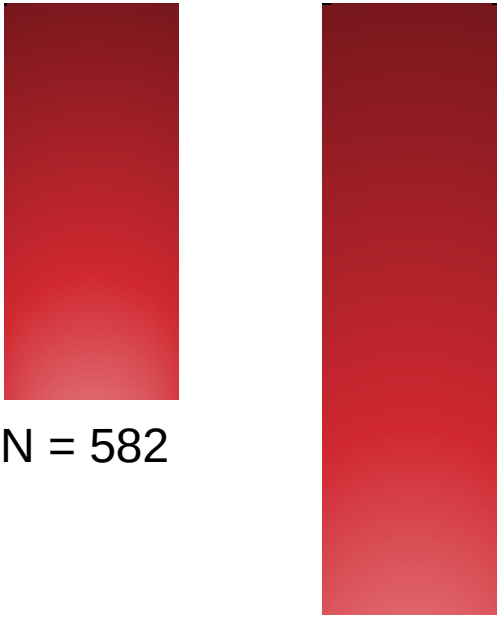
0 Qigong

New RCTs

2 Yoga

0 Tai chi

0 Qigong



15% increase in patients assessed

Yoga

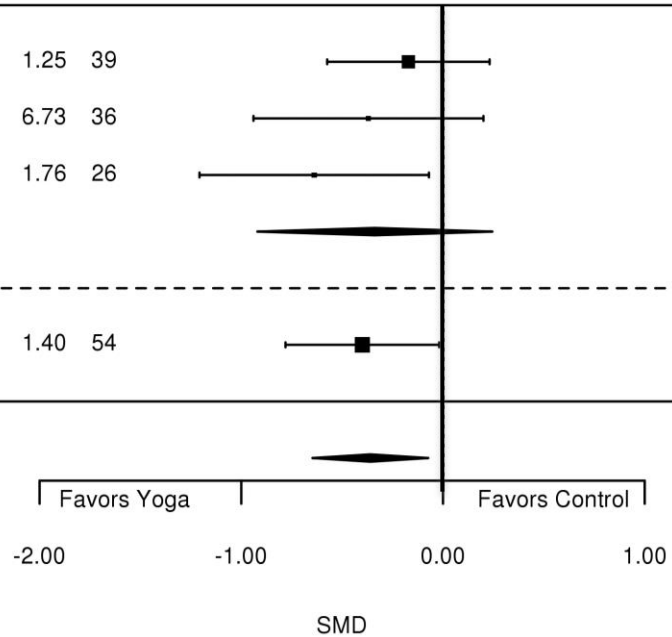
	Method	Comparator	Finding
Prior Systematic Review Cramer 2012	Meta-analysis 2 RCTs; n = 208	Active/inactive control	No difference
	Meta-analysis 2 RCTs; n = 232	Active control (subgroup)	No difference

	Study	Comparator	Finding
New RCTs	Avis, 2014 n = 54	Active/Inactive control	No effect
	Ngowsiri 2014 n = 50	Wait list control	↓ VMS Severity

Yoga versus Control
on change in hot flash *severity* at end of treatment

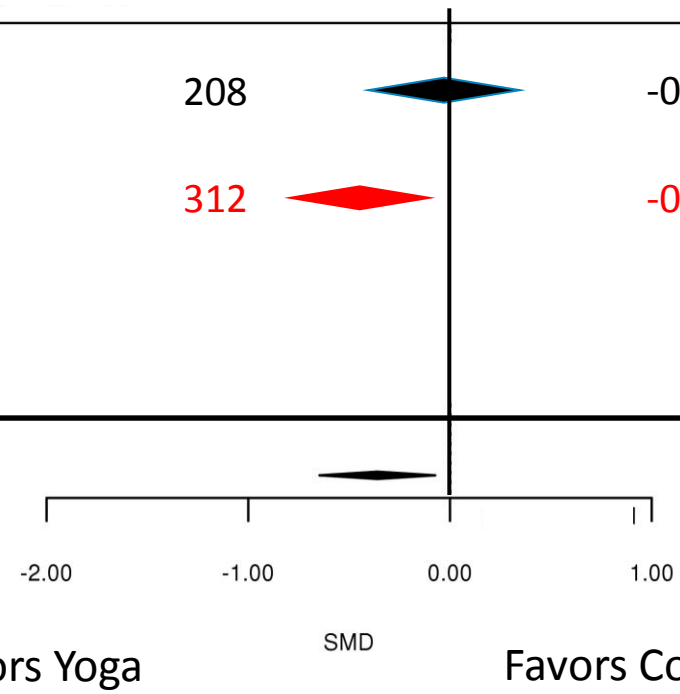
Study		Yoga Mean	Yoga SD	Yoga N	Control Mean	Control SD	Control N	SMD [95% CI]
Elavsky 2007	Wait list control	-0.33	1.56	61	-0.08	1.25	39	-0.17 [-0.57 , 0.23]
Avis 2014	Wait list control	-3.60	5.15	18	-1.25	6.73	36	-0.37 [-0.94 , 0.20]
Ngowsiri 2014	Wait list control	-1.10	1.63	24	0.00	1.76	26	-0.64 [-1.21 , -0.07]
Summary (I2 = 0.0%, Q = 1.7, P=0.42)								**-0.34 [-0.92 , 0.25]**
Chattha 2008	Attention control	-0.84	1.71	54	-0.21	1.40	54	-0.40 [-0.78 , -0.02]
Overall Summary								-0.36 [-0.65 , -0.07]

I2 = 0.0%, Q = 1.8, P=0.61



Yoga versus Control
on change in hot flash *severity* at end of treatment

Estimate source	#studies	#patients	SMD [95%CI]
Previous SR (Cramer, 2012)	2	208	-0.04 [-0.68,0.60]
Our new MA	4	312	-0.36 [-0.65,-0.07]



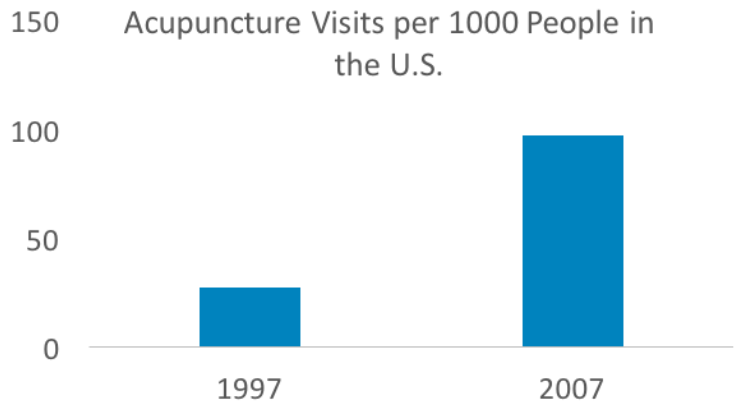
Yoga - conclusions

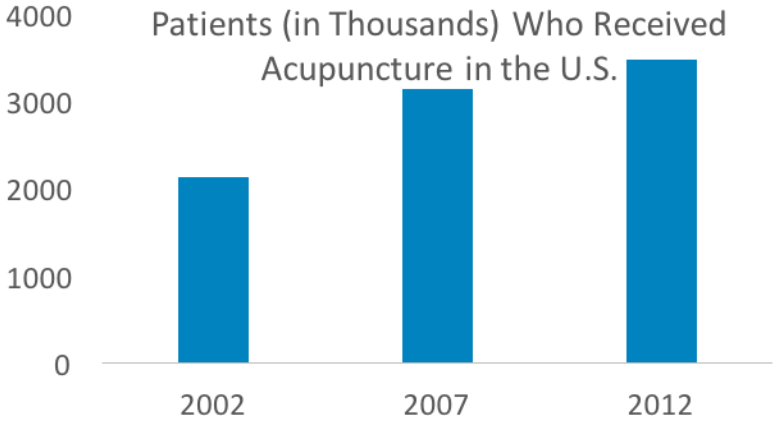
- Yoga associated with reduction in hot flash severity
  - Results contradict those from past SRs
- Yoga might be an acceptable therapy for women in the menopausal transition
- Updated results should be taken into consideration when revising clinical or policy recommendations

Acupuncture

- Acupuncture is a therapeutic modality that involves inserting small, metal needle into the skin
- Acupuncture has been an integral part of clinical medicine in Asia for several thousand years
- Acupuncture has increased in popularity and use in the U.S. in the past 40 years
- Vasomotor symptoms are a common indication for acupuncture

Acupuncture





Acupuncture

SR

1 Good quality
(15 RCTS)

2 Fair quality

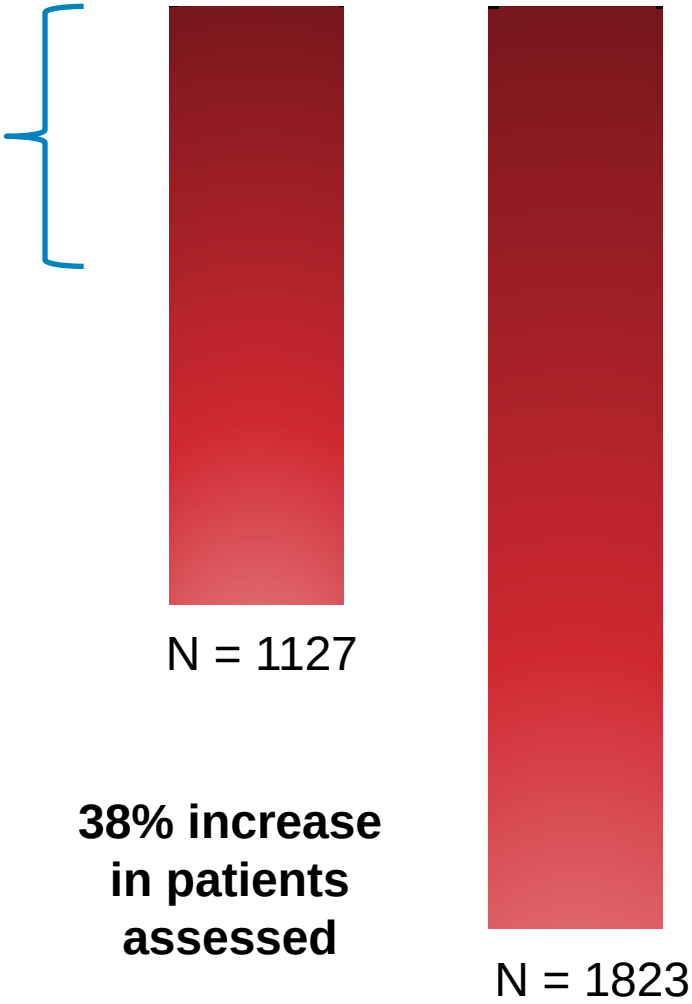
N = 1127

Acupuncture

SR → 1 Good quality (15 RCTS)

SR → 2 Fair quality

RCTs → 4 new



38% increase in patients assessed

Acupuncture

	Method	Comparator	Finding
Prior Systematic Review	Meta-analysis 3 RCTs; n = 463	No Acupuncture	↓ VMS frequency/severity
Dodin 2013	Meta-analysis 8 RCTs; n = 414	Sham Acupuncture	↓ VMS severity only

	Study	Comparator	Finding
New RCTs	Ee 2016 n = 327	Sham acupuncture	↓ VMS composite score
	Avis 2016 n = 209	Waitlist control	↓ VMS frequency/severity
	Mao 2015 n = 120	Placebo, Gabapentin, Sham acupuncture	↓ VMS composite score
	Nedeljkovic n = 40	Sham acupuncture, Placebo	↓ VMS frequency/severity

Acupuncture vs. No Acupuncture: Change in VMS Frequency

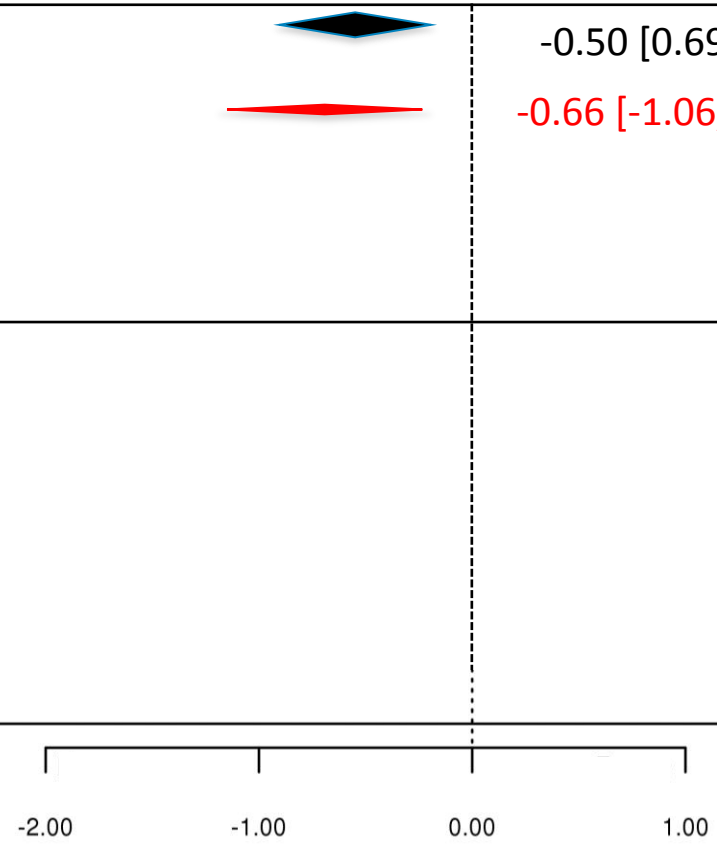
Study	Acupuncture Mean	Acupuncture SD	Acupuncture N	Waitlist Mean	Waitlist SD	Waitlist N	SMD [95% CI]
Avis 2008	-3.50	3.82	19	-2.00	3.49	19	-0.40 [-1.04 , 0.24]
Borud 2009	-5.80	4.60	134	-3.70	3.70	133	-0.50 [-0.75 , -0.26]
Kim 2011	-6.67	7.34	116	-3.39	6.27	59	-0.47 [-0.78 , -0.15]
Painovich 2012	-3.50	3.00	12	-1.20	2.14	9	-0.83 [-1.73 , 0.07]
Avis 2016	-3.70	3.91	170	0.90	4.37	39	-1.15 [-1.51 , -0.78]
Summary (I2 = 61.7%, Q = 10.4, P=0.034)							**-0.66 [-1.06 , -0.26]**

Favors Acupuncture

Favors Waitlist

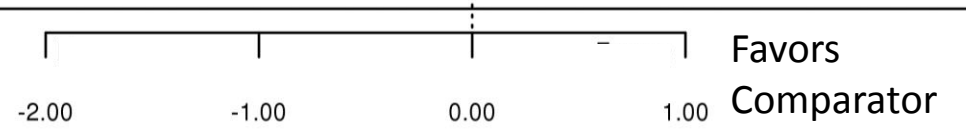
Acupuncture vs. No Acupuncture: Change in VMS frequency

Comparator	Source estimate	# Pts	Outcome	SMD (95% CI]
No Acupuncture	Dodin 2013	463	Frequency	-0.50 [0.69,-0.31]
	New MA	710	Frequency	-0.66 [-1.06, -0.26]



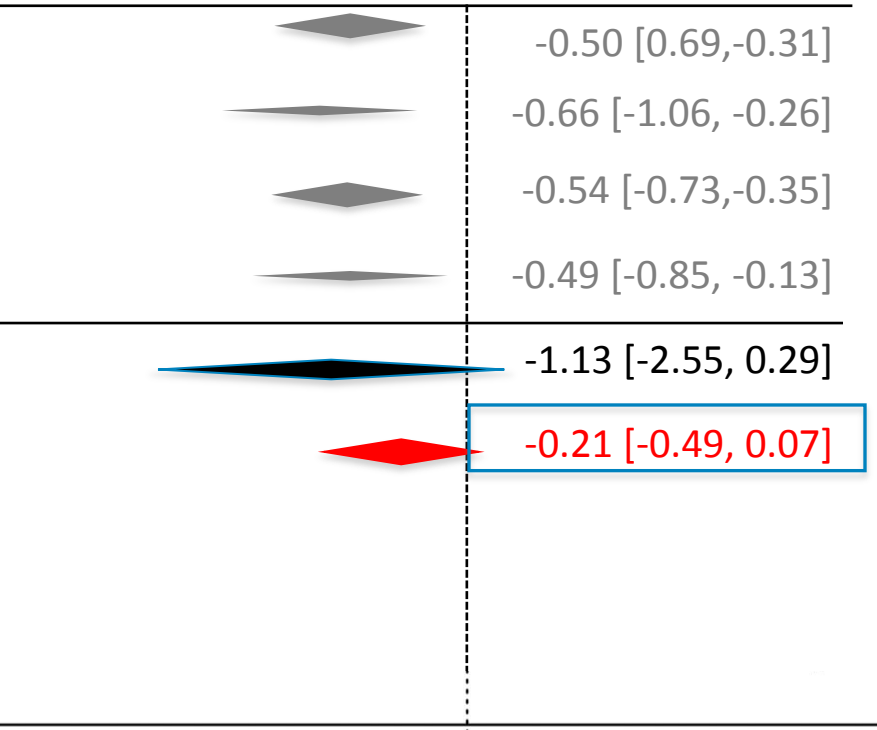
Acupuncture vs. No Acupuncture: Change in VMS severity

Comparator	Source estimate	# Pts	Outcome	SMD (95% CI]
No Acupuncture	Dodin 2013	463	**Frequency**	-0.50 [0.69,-0.31]
	New MA	710	**Frequency**	-0.66 [-1.06, -0.26]
	Dodin 2013	463	**Severity**	-0.54 [-0.73,-0.35]
	New MA	501	**Severity**	-0.49 [-0.85, -0.13]



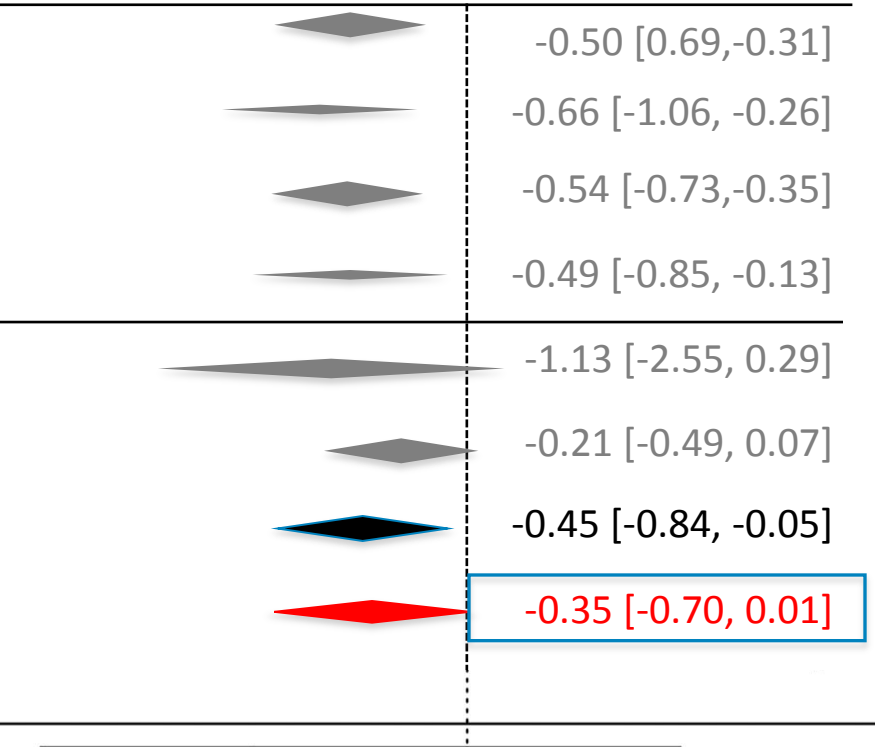
Acupuncture vs. Sham Acupuncture: Change in VMS frequency

Comparator	Source estimate	# Pts	Outcome	SMD (95% CI]
No Acupuncture	Dodin 2013	463	Frequency	-0.50 [0.69,-0.31]
	New MA	710	Frequency	-0.66 [-1.06, -0.26]
	Dodin 2013	363	Severity	-0.54 [-0.73,-0.35]
	New MA	501	Severity	-0.49 [-0.85, -0.13]
Sham Acupuncture	Dodin 2013	414	**Frequency**	-1.13 [-2.55, 0.29]
	New MA	761	**Frequency**	-0.21 [-0.49, 0.07]



Acupuncture vs. Sham Acupuncture: Change in VMS severity

Comparator	Source estimate	# Pts	Outcome	SMD (95% CI]
No Acupuncture	Dodin 2013	463	Frequency	-0.50 [0.69,-0.31]
	New MA	710	Frequency	-0.66 [-1.06, -0.26]
	Dodin 2013	463	Severity	-0.54 [-0.73,-0.35]
	New MA	501	Severity	-0.49 [-0.85, -0.13]
Sham Acupuncture	Dodin 2013	414	Frequency	-1.13 [-2.55, 0.29]
	New MA	761	Frequency	-0.21 [-0.49, 0.07]
	Dodin 2013	297	Severity	-0.45 [-0.84, -0.05]
	New MA	644	Severity	-0.35 [-0.70, 0.01]



Acupuncture conclusions

- Acupuncture is associated with significant improvement in VMS frequency and severity as well as quality of life measures compared with no acupuncture
- There are mixed findings regarding acupuncture's effectiveness compared with sham acupuncture
- These findings suggest that acupuncture may be effective as an adjunctive treatment for VMS
- The extent to which nonspecific or placebo effects contribute acupuncture's effectiveness is unclear

Relaxation, hypnosis, meditation, and mindfulness

- **Relaxation** – collection of behavioral techniques related to somatic and/or cognitive relaxation
  - Example: paced respiration, progressive muscle relaxation

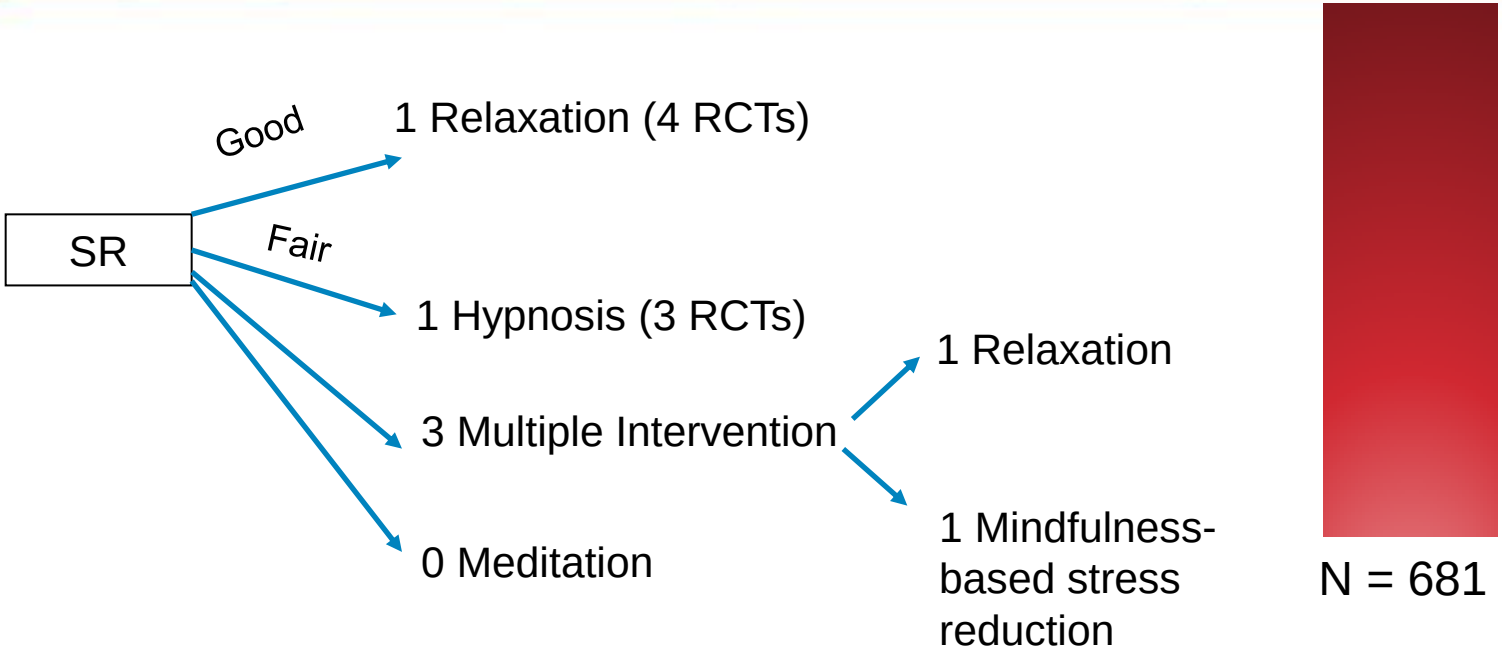
- **Hypnosis** – use of suggestions to change perception, sensation, emotion, thought or behavior

- **Meditation –** action or practice of meditating

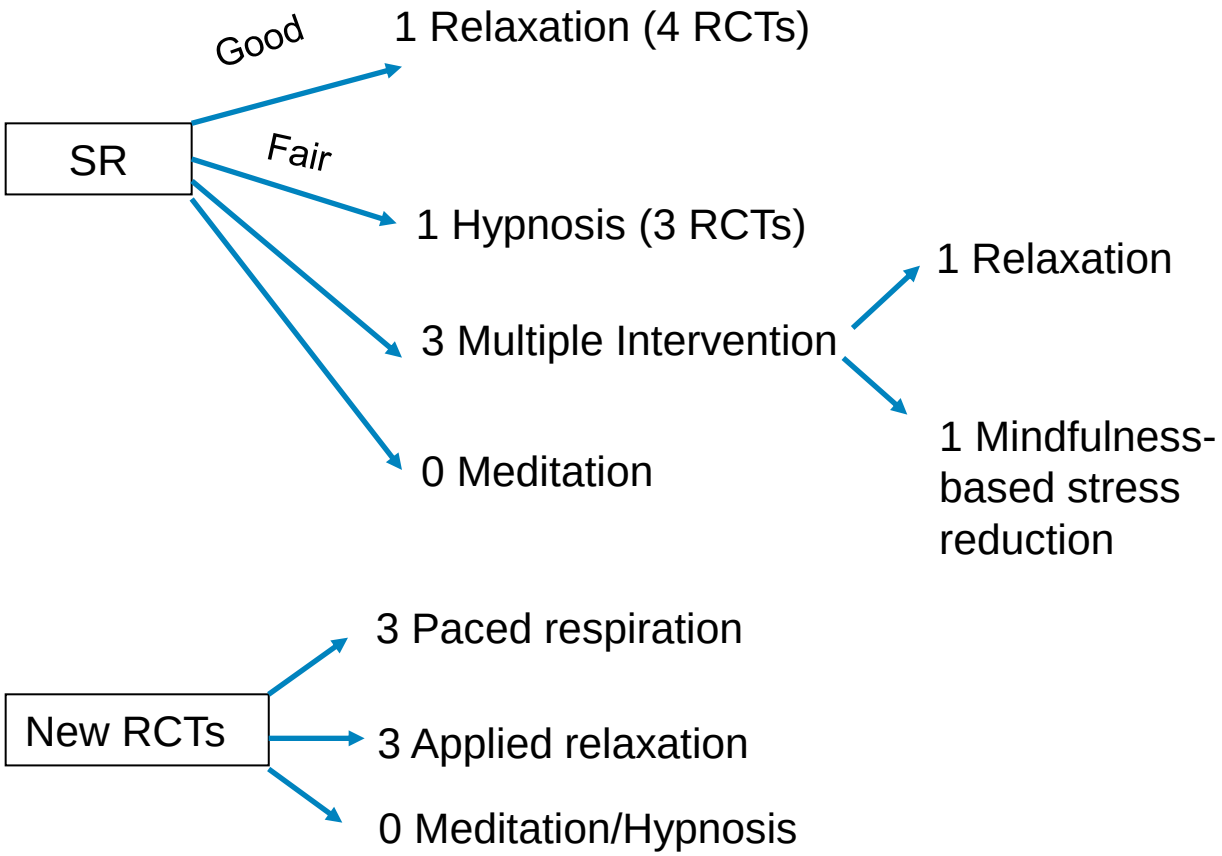
- **Mindfulness**– self-regulation on attention and an orientation to the present
  - Example: Mindfulness Based Stress Reduction

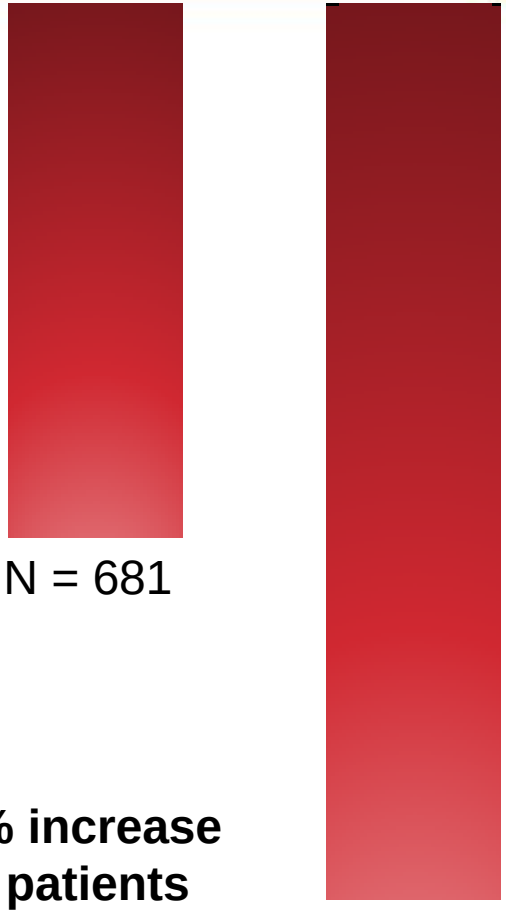
Hempel 2014; Saensak 2014; Cramer 2015

Relaxation, hypnosis, meditation and mindfulness



Relaxation, hypnosis, meditation and mindfulness





48% increase in patients assessed

Hypnosis

Prior Systematic Review

Cramer 2015

Method	Comparator	Finding
2 RCTs (n = 247)	Active/inactive control	↓ VMS frequency/ severity
1 RCT (n = 27)	Gabapentin	No difference

No new RCTS

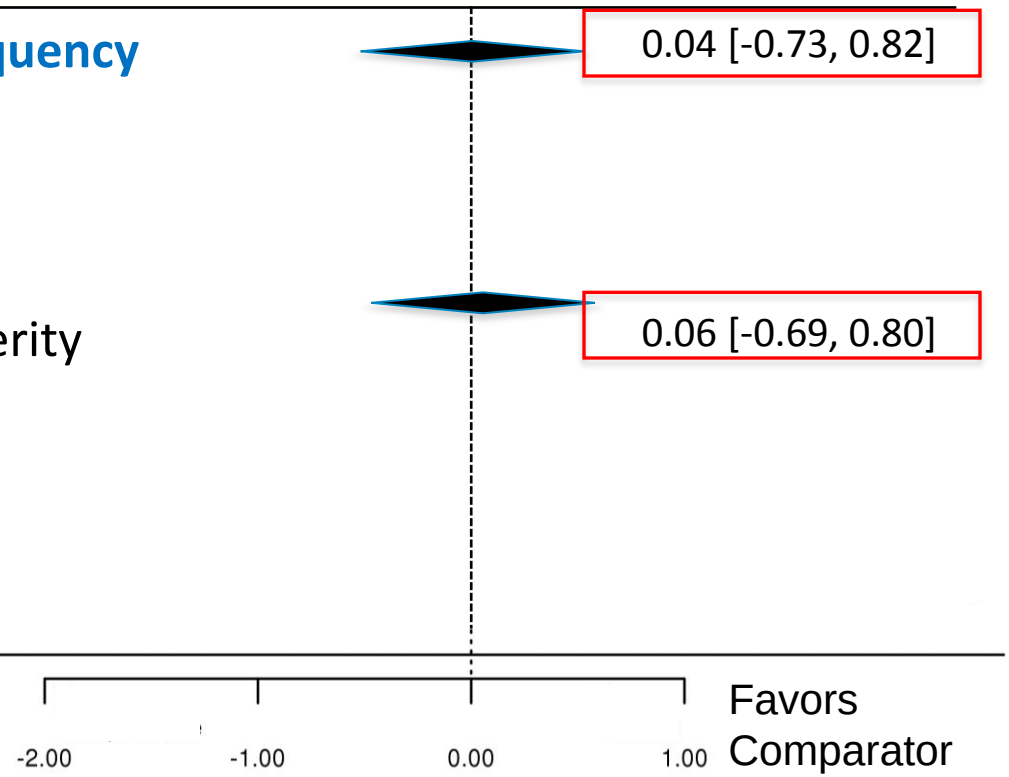
Applied Relaxation

	Method	Comparator	Finding
Prior Systematic Review	Meta-analysis 2 RCTs; n = 72	Acupuncture	No difference
Saensak 2014	2 RCTs; n = 183	Inactive/active control	No effect

	Study	Comparator	Finding
New RCTs	Lindh-Astrad 2013 n = 327	Inactive control	↓ VMS at 12 weeks
	Saensak 2013 n = 71	Modified-training	No difference
	Lindh-Astrad 2015 n = 46	Inactive control	Stopped early

Paced Respiration on change in VMS at end-of-treatment

Comparator	Source estimate	# Pts	Outcome	SMD (95% CI)
Control	New MA	316	**Frequency**	0.04 [-0.73, 0.82]
	New MA	389	Severity	0.06 [-0.69, 0.80]

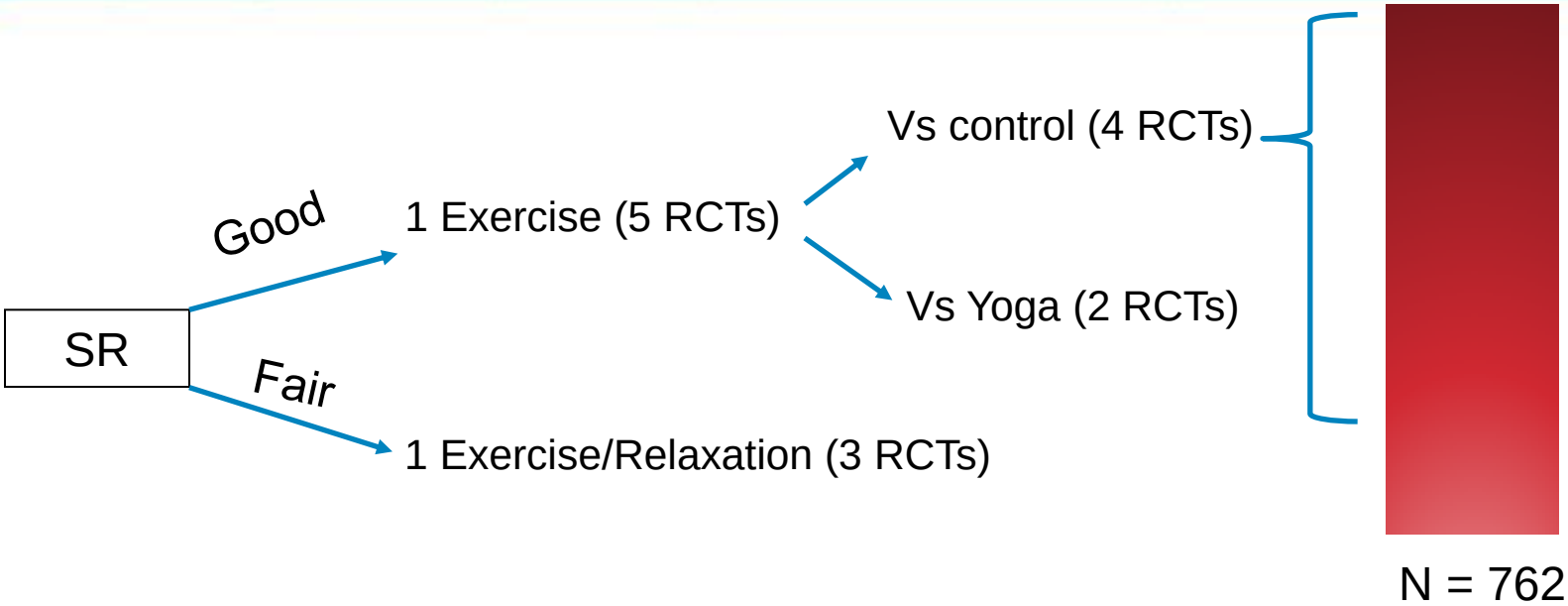


Structured exercise

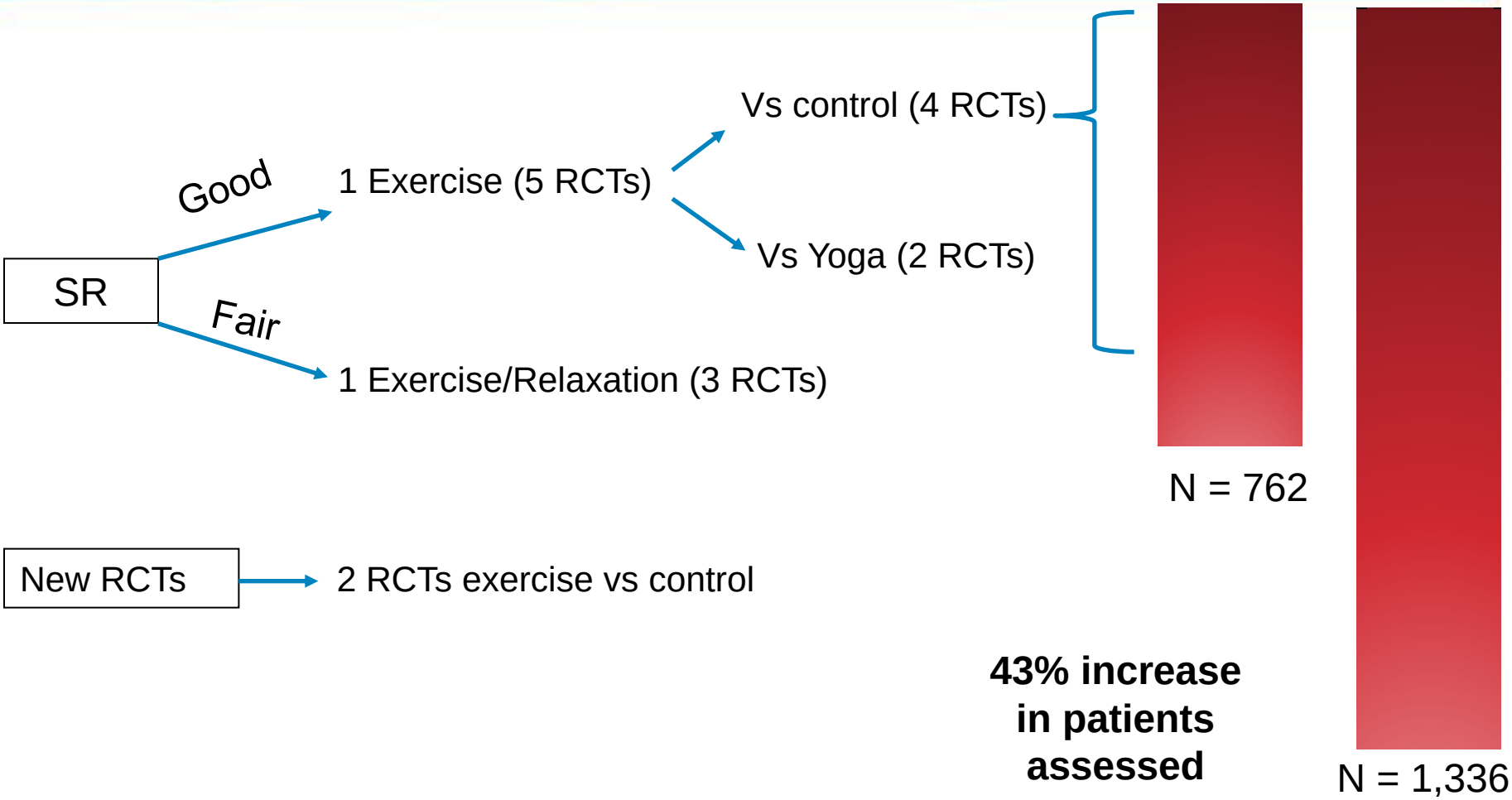
Regular physical activity:

- Done with the intention of improving or maintaining physical fitness or health
- Or, performed as a part of a class
- Or, with support from a health professional

Structured exercise



Structured exercise



Structured exercise

Prior Systematic Review

Daley 2014

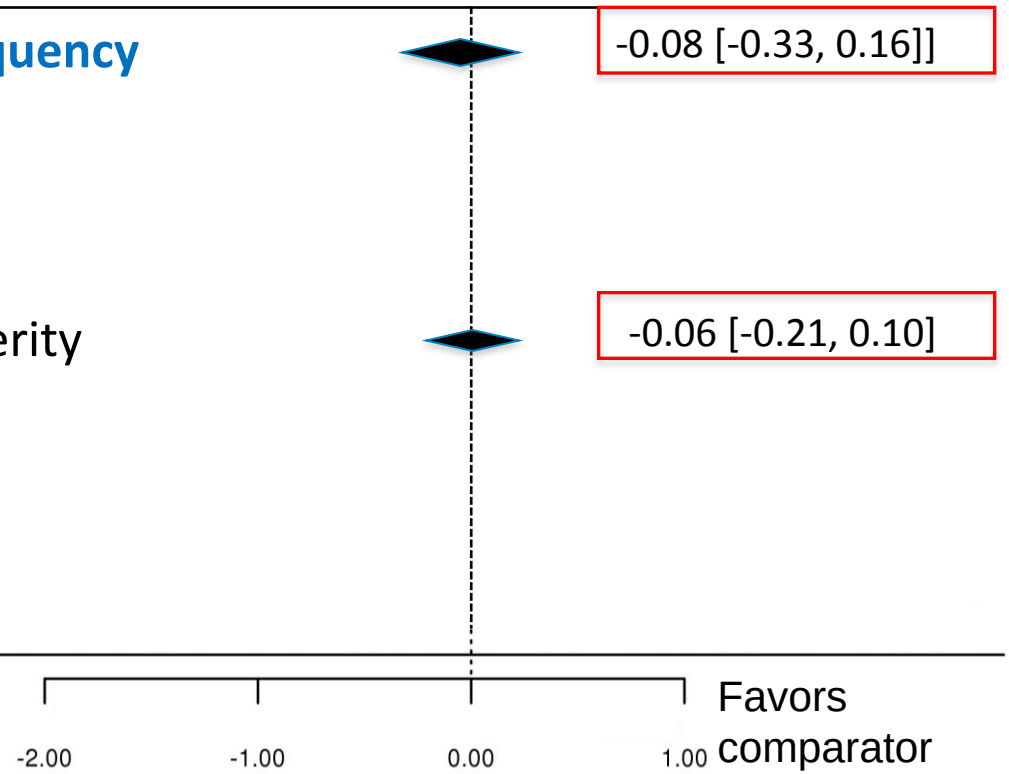
Method	Comparator	Finding
Meta-analysis 3 RCTs	Inactive Control	No effect
Meta-analysis 2 RCTs	Yoga	No difference

New RCTs

Study	Comparator	Finding
Dujits 2012 n = 313	Inactive control	No effect
Daley 2015 n = 261	Inactive control	No effect

Structured exercise on change in VMS at end-of-treatment

Comparator	Source estimate	# Pts	Outcome	SMD (95% CI]
Control	New MA	673	**Frequency**	-0.08 [-0.33, 0.16]]
	New MA	878	Severity	-0.06 [-0.21, 0.10]



Intervention Type	Adverse events
Acupuncture	Mild reactions when reported
Yoga	None
Structured Exercise	No serious adverse reactions Similar to placebo
Relaxation, Hypnosis & Meditation	Mild

Quality of Life

- **Acupuncture**
  - Insufficient data for acupuncture vs. no acupuncture
  - No improvement in quality of life vs. sham acupuncture:
    New MA: SMD -0.23, 95% CI -1.40, 0.95, 5 trials
- **Yoga**
  - Insufficient data for new MA
  - One small trial found non-statistically significant improvement
- **Structured exercise**
  - Insufficient data
- **Relaxation, hypnosis, and meditation**
  - Insufficient data

Limitations

- **Of the Review of Reviews**
  - Reliance on authors assessment of risk of bias, search strategy and synthesis
- **Of the studies**
  - Most were small, short-term trials
  - Mostly unmasked, self-report assessments
  - Varying outcome measures
  - Unexplained heterogeneity
- None of trials specifically involved Veterans

Nonpharmacologic, nonhormonal treatments for VMS

Acupuncture vs control
Yoga vs control
+/- Hypnosis

Acupuncture vs Sham Acupuncture
Paced respiration
Structured exercise

Mindfulness
Applied Relaxation
Qigong
Tai Chi
Meditation

Thank you!

If you have further questions, please feel free to contact:

Karen Goldstein, MD MSPH

919.286.0411 ext. 7764

karen.goldstein@va.gov

Full-length report and cyberseminar available on ESP website:

http://www.hsrd.research.va.gov/publications/esp/

Discussants

Dr. Alicia Christy

Deputy Director of Reproductive Health

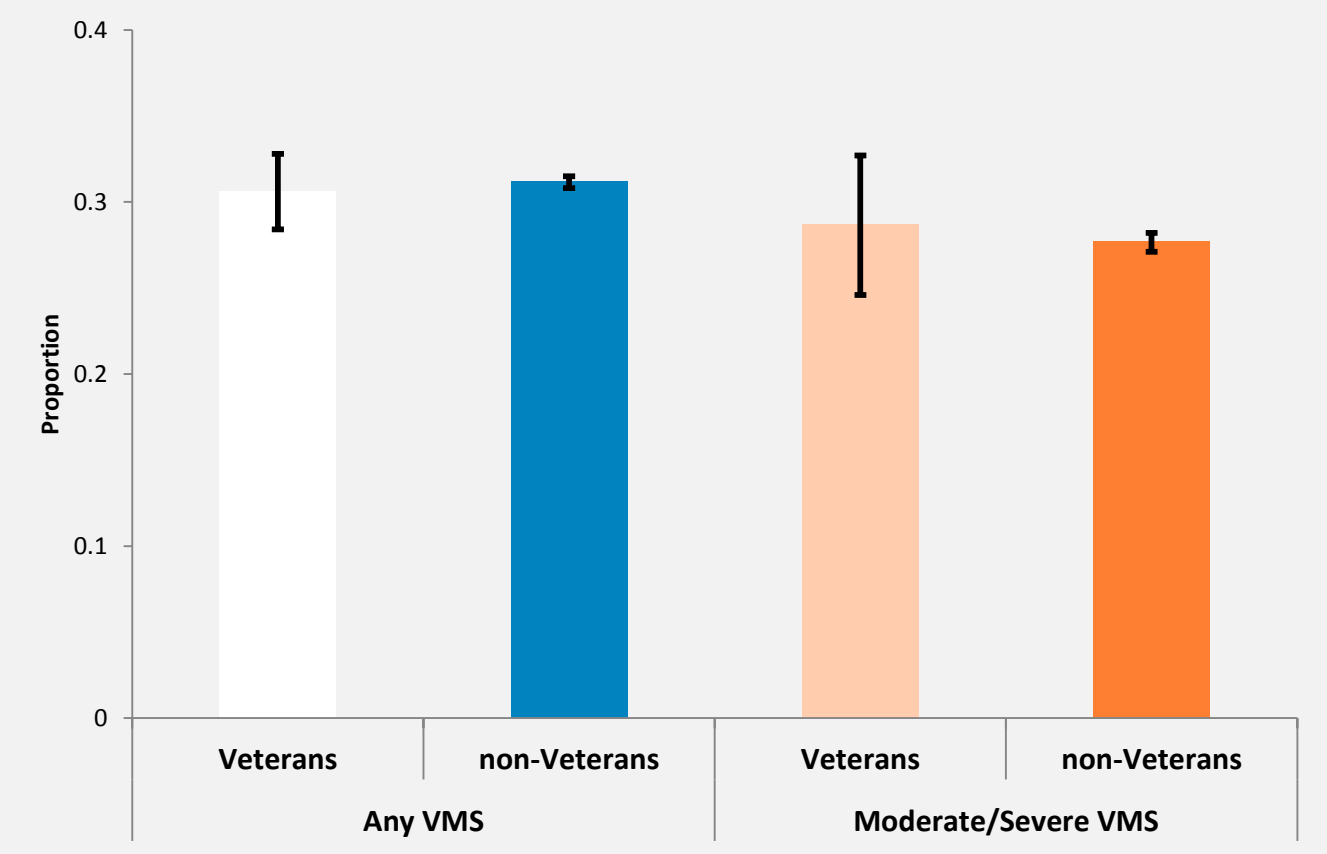
Women's Health Services

Dr. Jodie Katon

former Sr. Reproductive Epidemiology

Consultant for Women's Health Services

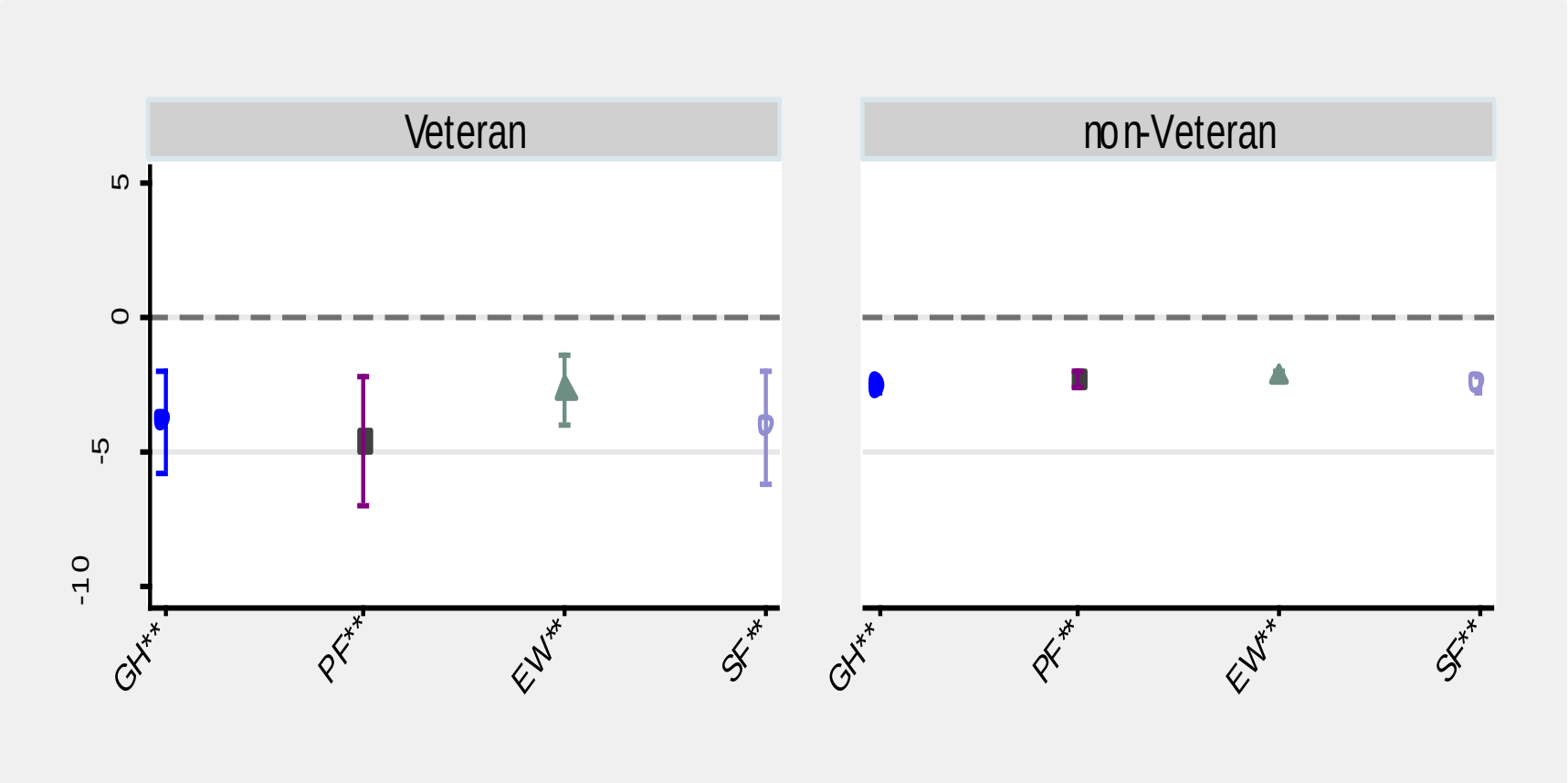
Prevalence and severity of VMS among women Veterans



[1]Adjusted for age, race, education, time since menopause, obesity, pack years of smoking, depression, diabetes, hypertension and physical activity

Katon, J. G., et al. (2016). "Vasomotor Symptoms and Quality of Life Among Veteran and Non-Veteran Postmenopausal Women." Gerontologist **56 Suppl 1**: S40-53.

VMS and Quality of Life



GH = general health, PF = physical function, EW = emotional well- being, SF = social function
*** p<0.001,** p<0.01, * p<0.05
[1]Adjusted for age, race, education, overall QOL at baseline, obesity, pack years of smoking, depression, diabetes, hypertension and physical activity

Katon, J. G., et al. (2016). "Vasomotor Symptoms and Quality of Life Among Veteran and Non-Veteran Postmenopausal Women." Gerontologist **56 Suppl 1**: S40-53.

Frequency of Menopausal Disorders

	Age Group		
	18-44 years old	**45-64 years old**	**≥65 years old**
1	Menstrual disorders and endometriosis	**Menopausal disorders**	Osteoporosis
2	Other female reproductive organ conditions	Urinary conditions	Urinary conditions
3	STI and vaginitis	Other female reproductive organ conditions	**Menopausal disorders**
4	Urinary conditions	Benign breast conditions	Breast cancer
5	Pregnancy-related	STI and vaginitis	Benign breast conditions *and* other female reproductive organ conditions

Katon, J. G., et al. (2015). "Reproductive Health Diagnoses of Women Veterans Using Department of Veterans Affairs Health Care." Med Care **53 Suppl 4 Suppl 1**: S63-S67.


Partners with Veterans to discover their sense of meaning, aspiration, and purpose, and begins to create an overarching personal health plan
Personal Health Planning
Wellbeing Programs
• Self-Care/ **Complementary & Integrative Health (CIH)**
• Health Coaching & Health Partner Support
Integrative Clinical Care
• Outpatient & Inpatient
• Health & Disease Management within a Whole Health Paradigm (i.e., Personal Health Planning, **CIH**, Health Coaching)
Healing Environments
Healing Relationships
Community

DEFINITIONS

Whole Health (WH) : is an approach to health care that empowers AND equips people to take charge of their health and well-being, and live their life to the fullest.

Complementary and Integrative Health (CIH):

- **Complementary health** is a group of diverse medical and health care systems, practices, and products that are not considered to be part of conventional or allopathic medicine. Most of these practices are used together with conventional therapies. *(NCCIH Strategic Plan 2016).*
- **Integrative medicine and health** reaffirms the importance of the relationship between practitioner and patient, focuses on the whole person, is informed by evidence, and makes use of all appropriate therapeutic and lifestyle approaches, healthcare professionals and disciplines to achieve optimal health and healing. *(Academic Consortium for Integrative Medicine and Health 2016)*

WH/CIH Highlights 2016

- OPCC&CT launches 11 new Whole Health Design sites for FY 17, now working with a total of 18 WH sites
- VISN Directors commit to 18 full-scale implementation WH demonstration sites in FY 18
- IHCC Advisory Group approves acupuncture, massage, tai chi, yoga, meditation>>>more to come!
- OSI/Pain memo released for VISN CIH POC

Integrative Health Coordinating Center

- The IHCC is charged with developing and implementing complementary and integrative health (CIH) strategies in clinical activities, education, and research across the system.

- **Two major functions**:
  - Identify and address barriers to providing CIH across the VHA system.
  - Serve as a resource for clinical practices and education for Veterans and VA staff

Core IHCC Staff

- Core IHCC Staff:
  - **National Director**, Benjamin Kligler (MD, MPH)
  - **Program Manager**: Alison Whitehead, MPH, RYT, PMP
  - **Project Manager**: Belinda Collingbourne, MBA, PMP
  - **Lead Clinical Champion**: Kavitha Reddy MD FACEPABoIM
- In addition to core staff, IHCC works closely with other OPCC&CT staff, Clinical Champions and other partners across the VA and in the community.

Current IHCC Focus Areas

- Policy and Guidance Development
  - Planned release of CIH instruction manual FY 17 Q2
  - IHCC Advisory Committee
  - Workgroups (yoga, tai chi, nutraceuticals, acupuncture)
- Coding, Tracking, Billing
- New Occupations
  - Acupuncturists
  - Massage Therapists
- Access/Community Care
- Strategic Partnerships
- Metrics/Outcome evaluation
- Comprehensive Addiction and Recover Act 2016

CARA 2016

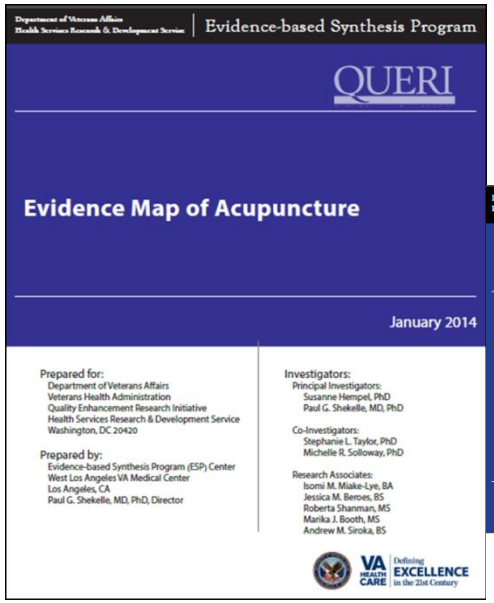
S.524 - Comprehensive Addiction and Recovery Act of 2016 - Subtitle C—Complementary and Integrative Health (CIH)

- **Sec. 931 & 932. Expansion of research and education on and delivery of CIH to veterans.**
  - Establishment of "Creating Options for Veterans' Expedited Recovery" Commission
  - **Development of plan** to expand research, education, and delivery of CIH to Veterans (within 180 days)

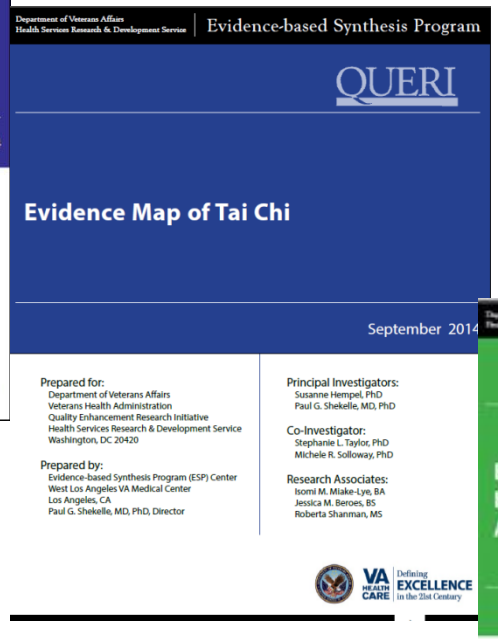
- **Sec. 933. Pilot program on integration of CIH and related issues for Veterans and family members of Veterans.**

- https://www.congress.gov/bill/114th-congress/senate-bill/524/text

HSR&D QUERI Evidence Maps

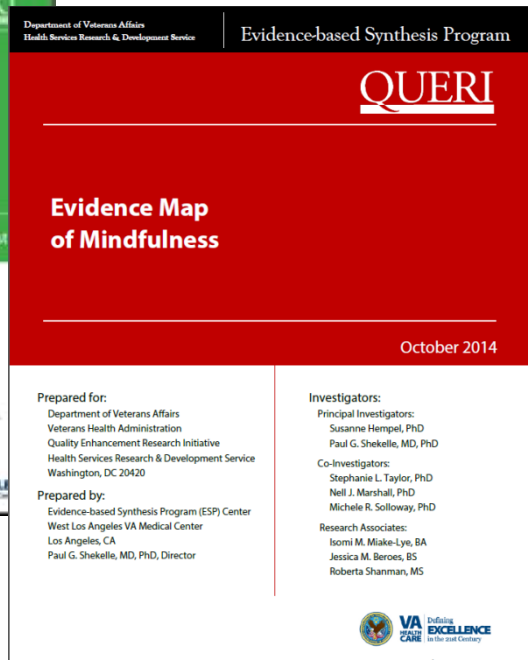


Evidence Map of Acupuncture: Click here



Evidence Map of Tai Chi: Click here

Evidence Map of Yoga: Click here



Evidence Map of Mindfulness: Click here

Intranet Only:

Massage for Pain: An Evidence Map

Resources

- **Whole Health Library:** http://projects.hsl.wisc.edu/SERVICE/curriculum/index.html
  - **Module 25: Women's Health**
    - **Clinical Tools**
      - Menopause
      - Hormone Replacement Therapy
      - Endometriosis
      - Fibroids
      - Phytoestrogens
      - Dysmenorrhea, Menstrual Cramping
      - Estrogen Dominance
      - Polycystic Ovarian Syndrome
- **OPCC&CT SharePoint:** http://vaww.infoshare.va.gov/sites/OPCC/default.aspx
- **IHCC SharePoint:** http://vaww.infoshare.va.gov/sites/OPCC/sitePages/IHCC-home.aspx

Healthy Aging in Women's Health Services

Healthy aging priorities

- Develop capacity and improve care coordination (e.g. menopausal symptom management, pelvic floor disorders)
- Improve access
- Build partnerships around specialty specific reproductive health care needs
- Ensure adequate resources for providers
- Develop models of Best Practices for healthy aging
- Develop strategies to reach high risk subgroups

Healthy Aging in Women's Health

- Evidence –based clinical management
  - Optimize medication management
  - Prioritize the impact of mental health and postmenopausal management
- Develop resources for providers and patients through the North American Menopause Society and ACOG
  - Patient Education
  - MenoPro Mobile App
  - Position statements (NAMS)
  - Practice bulletins (ACOG)

Healthy Aging in Women's Health

- Incorporation of research to ensure access to current evidence-based treatment
- Recognition of unique characteristics of menopausal age Veterans and medical care within VHA (Katon 2015)
- Systematic reviews to evaluate non-pharmacologic and non-traditional therapies
  - SSRIs
  - Complimentary and alternative medications
  - Mind/body practices

References

- Avis NE, Crawford SL, Greendale G, et al. Duration of menopausal vasomotor symptoms over the menopause transition. *JAMA Intern Med.* 2015;175(4):531-539. Katon article
- Stuenkel CA, Davis SR, Gompel A, et al. Treatment of Symptoms of the Menopause: An Endocrine Society Clinical Practice Guideline. *J Clin Endocrinol Metab.* 2015;100(11):3975-4011.
- ACOG Practice Bulletin No. 141: management of menopausal symptoms. *Obstet Gynecol.* 2014;123(1):202-216.
- The North American Menopause Society Statement on Continuing Use of Systemic Hormone Therapy After Age 65. *Menopause.* 2015;22(7):693.
- Grant MD, Marbella A, Wang AT, et al. Menopausal Symptoms: Comparative Effectiveness of Therapies. Comparative Effectiveness Review No. 147. (Prepared by Blue Cross and Blue Shield Association Technology Evaluation Center Evidence-based Practice Center under Contract No. 290-2007-10058-I.) AHRQ Publication No. 15-EHC005-EF. Rockville, MD: Agency for Healthcare Research and Quality; March 2015. www.effectivehealthcare.ahrq.gov/reports/final.cfm.

References continued…

- Saensak S, Vutyavanich T, Somboonporn W, Srisurapanont M. Relaxation for perimenopausal and postmenopausal symptoms. *Cochrane Database Syst Rev.* 2014;7:CD008582. Hempel et al. Evidence Map of Mindfulness. ESP report. October 2014
- Goldstein KM, McDuffie JR, Shepherd-Banigan M, et al. Nonpharmacologic, nonherbal management of menopause-associated vasomotor symptoms: an umbrella systematic review (protocol). *Syst Rev.* 2016;5(1):56.
- Cramer H, Lauche R, Paul A, Langhorst J, Kummel S, Dobos GJ. Hypnosis in breast cancer care: a systematic review of randomized controlled trials. *Integr Cancer Ther.* 2015;14(1):5-15.
- Frayne et al. Sourcebook: Women Veterans in the Veterans Health Adminstration. Volume 2. Sociodemographics and Use of VHA and Non-VA Care. Women's Health Evaluation Initiative, Women's Health Services, VHA, Dept. VA, Washington DC. October 2012.

References continued…

- Gerber et al. Hormone Therapy Use in Women Veterans Accessing Veterans Health Administration Care: A National Cross-Sectional Study. JGIM. 2014. 30(2): 169-75.
- Katon et al. Vasomotor Symptoms and Quality of Life Among Veteran and Non-Veteran Postmenopausal Women. Gerontologist. 2016. 56 (1): S40-53.

- References for included Systematic Reviews and Randomized Controlled Trials mentioned in this report can be found in the full report:
  http://www.hsrd.research.va.gov/publications/esp/reports.cfm

Additional Funding

Karen M. Goldstein is supported by VA HSR&D Career Development Award #13-263

Megan Shepherd-Banigan is supported by a VA OAA HSR&D PhD Fellowship TTP 21-027

Please include the following correction:

In response to the question about effect size for estrogen-based hormone therapies on vasomotor symptoms: according to the recent AHRQ systematic review by Grant and colleagues (see link below), the effect size for estrogen based hormone therapy on VMS is -0.50 for high dose estrogen compared to placebo, -0.64 for standard dose estrogen compared to placebo, and -0.55 for low dose estrogen compared to placebo.

https://www.effectivehealthcare.ahrq.gov/ehc/products/353/2052/menopausal-executive-150304.pdf

In response to the question about the role of estrogen based hormone therapy for the treatment of osteoporosis: While it is a treatment option, it is generally not first-line therapy for prevention or treatment of osteoporosis due to associated risks.