

MGS ANNUAL  
CONFERENCE | APRIL 27  
2018  
*Wellness Agenda: Healthy Communities. Healthy You.*

## Integrated Care for Older Adults: A Chiropractic Approach

# Integrated Care for Older Adults



Northwestern Health  
Sciences University

Paul Osterbauer,  
DC, MPH



Meghan Coleman,  
DC, DCBCN



Cara Borggren,  
DC



## Learning Objectives:

- \* Describe the use of chiropractic care among older adults in the U.S. and its potential role in supporting the health of older adults and their caregivers.
- \* Discuss the unique role that chiropractors can play in improving physical function and well-being through non-pharmacological means such as spinal manipulation, CAM modalities, and lifestyle coaching.
- \* Identify common conditions and considerations of chiropractic care for geriatrics patients.

# Integrated Care for Older Adults

## Definitions - Integrative care

- \* APA
- \* National Center for Complementary and Integrative Health
- \* And?
  - \* *Holistic view of patient*
  - \* *“Docere”*

<http://www.apa.org/health/integrated-health-care.aspx>

<https://www.nlm.nih.gov/tsd/acquisitions/cdm/subjects24.html>

# Integrated Care for Older Adults

## Definitions - CAM

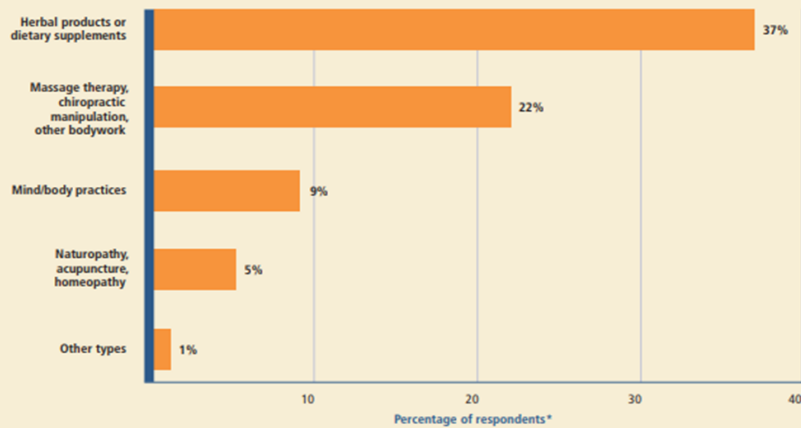
- \* Complementary - used together with mainstream practices
- \* Alternative – used instead of mainstream practices
  
- \* 1) Natural products
- \* 2) Mind and body practices

<https://www.nlm.nih.gov/tsd/acquisitions/cdm/subjects24.htm>

1

# Integrated Care for Older Adults

Figure 1 Type of CAM Used in the Past 12 Months



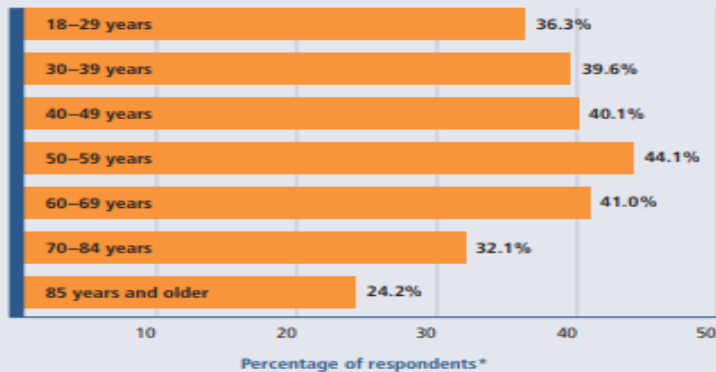
\*Base: All respondents (n=1,013). Sampling error:  $\pm 3.1$  percentage points. Respondents could choose more than one answer.

Source: AARP/NCCAM Survey of U.S. Adults 50+, 2010

Source: AARP, and National Center for Complementary and Alternative Medicine Survey Report

# Integrated Care for Older Adults

Figure 3 **CAM Use in the Past 12 Months Among U.S. Adults, by Age Category \*\***



\*Base: All adult respondents 18+ (n=23,393)

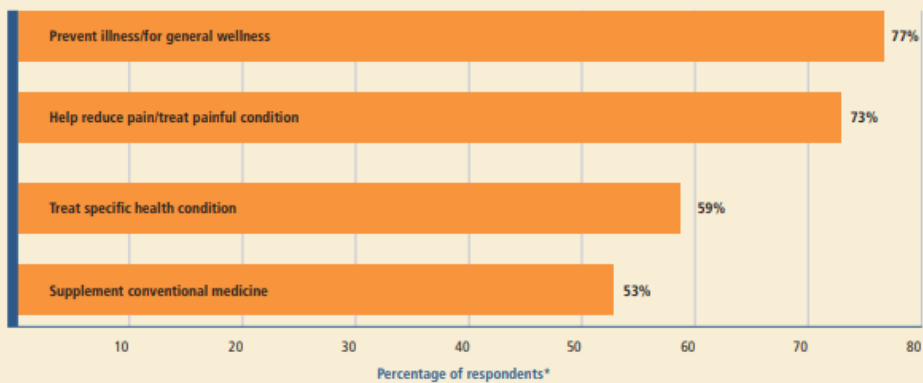
\*\*Barnes PM, Bloom B, Nahin R. Complementary and Alternative Medicine Use Among Adults and Children: United States, 2007. *CDC National Health Statistics Reports* #12. 2008.

Source: National Health Interview Survey, 2007

Source: AARP, and National Center for Complementary and Alternative Medicine Survey Report

# Integrated Care for Older Adults

Figure 4 Reasons for CAM Use



Base: Respondents who used CAM in past 12 months or ever (n=539). Sampling error:  $\pm 4.2$  percentage points. Respondents could choose more than one answer.

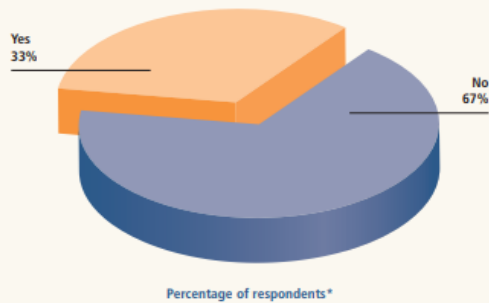
Source: AARP/NCCAM Survey of U.S. Adults 50+, 2010

Source: AARP, and National Center for Complementary and Alternative Medicine Survey Report



# Integrated Care for Older Adults

Figure 5 Respondents Who Discussed CAM With Health Care Provider



\*Base: All respondents (n=1,013). Sampling error: ± 3.1 percentage points.  
Source: AARP/NCCAM Survey of U.S. Adults 50+, 2010

Source: AARP, and National Center for Complementary and Alternative Medicine Survey Report

# Integrated Care for Older Adults

- \* Chiropractic and CAM

“older patients are more likely to receive unsafe, ineffective and complex management, including early diagnostic imaging, surgery, and strong opioids. “

Ferreira and de Luca, 2001 .

# Common Geriatric Conditions

- \* “Simple” mechanical back, sacroiliac dysfunction, sacroiliitis
- \* Spinal Stenosis
- \* Referral of pain to lower extremities
  - \* Sciatica
- \* Neck pain
- \* Headaches
- \* Radicular pain to upper extremities

# Common Geriatric Conditions

- \* Osteoarthritis, joint dysfunction, mechanical pain
- \* Distal joint pain
  - \* Shoulders
  - \* Knees
  - \* Hips
  - \* etc.

# Common Geriatric Conditions

- \* Balance problems >> falls risk
- \* Contributing factors include
  - \* BPPV
  - \* Medications
  - \* Hypotension
  - \* Postural imbalances

# Common Geriatric Conditions

- \* **Impact of Spinal Pain**
- \* Pain and Disability
  - \* < ADL's
  - \* < mobility
- \* Personal impact
  - \* social roles, relationships, self-image
- \* Depression, Cognition
- \* < QOL

Ferreira and de Luca, 2001 .

# Special Considerations

- \* Osteoporosis
- \* Sarcopenia
- \* Skin fragility
- \* Vascular fragility, insufficiency
- \* Comorbidities
- \* Polypharmacy
- \* Cognitive loss/dementias
- \* General frailty
- \* Elder abuse/neglect

# Special Considerations

- \* Social service needs
  - \* Transportation
  - \* Implementation
- \* Facility placement
  
- \* Caregiver availability & caregiver needs



# Principles of Chiropractic Practice

- \* Whole person focus – recognizes interconnectedness of mind, body, spirit
- \* Patient-centered – treatment approaches are unique to needs and desires of patient
- \* Integrative - Embraces multiple approaches to managing health and disease
  - \* > CAM

# Principles of Chiropractic Practice

- \* Promote disease prevention
- \* Embrace emerging evidence while respecting the profession's historical foundation
  - \* *Vis medicatrix naturae*
- \* Promote optimal health in context of NMS function

# A Chiropractic Approach

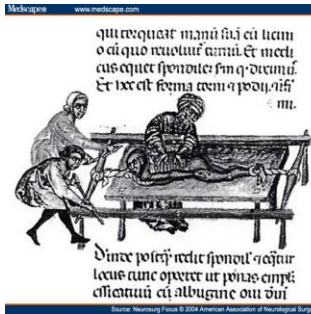
## **Chiropractic Care**

- \* Assessment/Examination
- \* Diagnosis
  - \* Record sharing
- \* Treatment Plan
  - \* Adjustments (SMT)
  - \* CAM
  - \* Referral
  - \* Self-care

# History of Spinal Manipulation



Source: Neurology Focus © 2004 American Association of Neurological Surgeons



Source: Neurology Focus © 2004 American Association of Neurological Surgeons

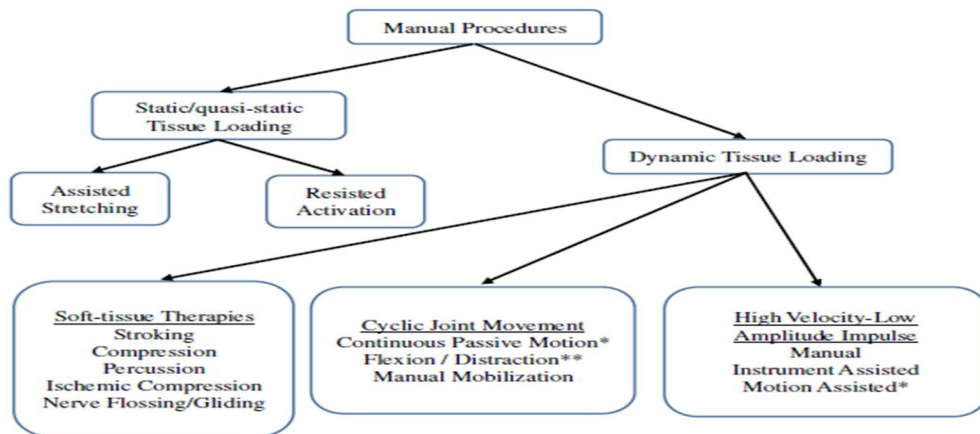


Source: Neurology Focus © 2004 American Association of Neurological Surgeons

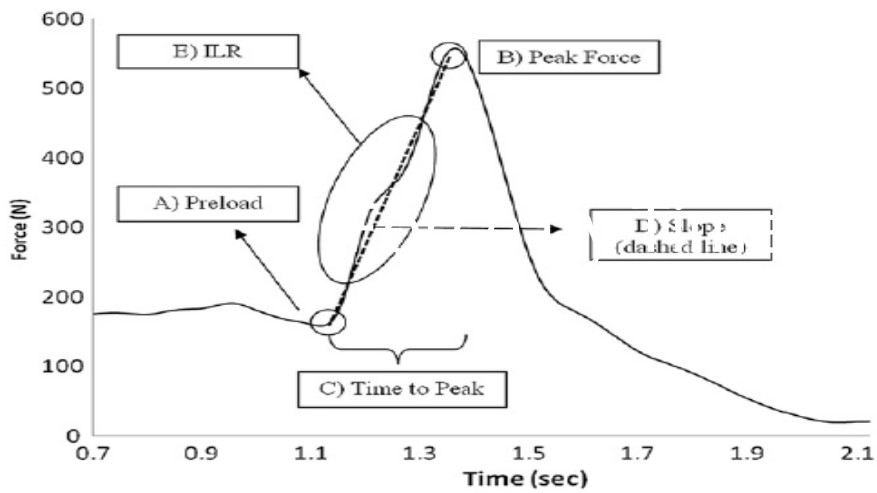
# A Chiropractic Approach- Spinal Manipulation



# A Chiropractic Approach- Spinal Manipulation



\* Triano and McGregor, 2017



A. Preload,  
B. Peak Force, C. Speed,  
Resolution

# Speed

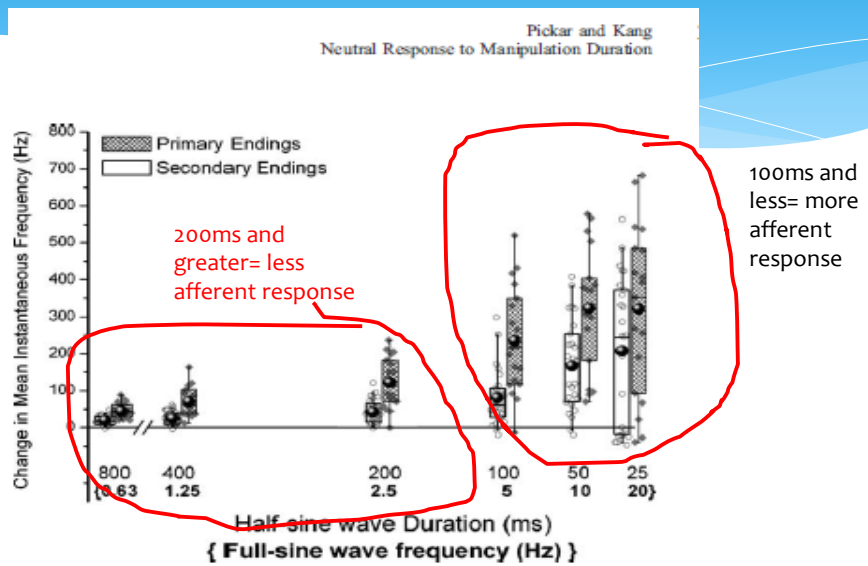


Fig 4. Pattern of responses for the 46 afferents.



# A Chiropractic Approach- Spinal Manipulation

- \* Loads consistent with ADLs: one hand lift of a 50 pound suitcase (Triano and Schultz, 1997)
  - \* Ranges: 77N to 870N



## Control Elements for Spinal Manipulation

### Patient

- Patient Posture
- Static
- Dynamic

### Provider

Preload  
Load direction  
Peak Load  
Load impulse Rate  
Load duration

# References

- Cambridge, EDJ, Triano, JJ, Ross, JK, Abbott, MS. Comparison of force development strategies of spinal manipulation used for thoracic pain. *Manual Therapy* 2012, 17(3), 241–245.  
<https://doi.org/10.1016/j.math.2012.02.003>
- \* Ferreira M, de Luca K. Spinal pain and its impact on older people. *Best Practice and Research, Clinical Rheumatology*. 2017; 15(1)
  - \* Maiers M, et al. Spinal manipulative therapy and exercise for seniors with chronic neck pain. *Spine J*. 2014 Sep 1;14(9):1879-89. doi: 10.1016/j.spinee.2013.10.035. Epub 2013 Nov 10.  
<http://www.sciencedirect.com/science/article/pii/S1529943013016306?via%3Dihub>
  - \* Maiers M, et al. Adverse events among seniors receiving spinal manipulation and exercise in a randomized clinical trial. *Man Ther*. 2015 Apr;20(2):335-41. doi: 10.1016/j.math.2014.10.003. Epub 2014 Oct 14.  
[http://www.mskscienceandpractice.com/article/S1356-689X\(14\)00185-4/pdf](http://www.mskscienceandpractice.com/article/S1356-689X(14)00185-4/pdf)
  - \* Maiers M, et al. Perceived value of spinal manipulative therapy and exercise among seniors with chronic neck pain: a mixed methods study. *J Rehabil Med*. 2014 Nov;46(10):1022-8. doi: 10.2340/16501977-1876. <https://www.medicaljournals.se/jrm/content/abstract/10.2340/16501977-1876>
  - \* Pikar, JG, Kang, YM. Paraspinal muscle spindle responses to the duration of a spinal manipulation under force control. *J Manipulative and Physiol Ther* 2006;229: 22–31. <https://doi.org/10.1016/j.jmpt.2005.11.014>
  - \* Triano JJ and Schultz AB. Loads transmitted during lumbosacral. *Spine* 1997; 22(17):1955-196
  - \* Triano J. The mechanics of spinal manipulation. In: Herzog W, editor. *Clinical biomechanics of spinal manipulation*. Philadelphia
  - \* Triano JJ, McGregor M. Core and complementary chiropractic: lowering the barriers to patient utilization of services. *J Chiropr Humanities*. 2016;23(1):1-13.  
<http://www.apa.org/health/integrated-health-care.aspx>
  - \* <https://nccih.nih.gov/about>
  - \* <https://www.nlm.nih.gov/tsd/acquisitions/cdm/subjects24.html>
  - \* [https://nccih.nih.gov/sites/nccam.nih.gov/files/news/camstats/2010/NCCAM\\_aarp\\_survey.pdf](https://nccih.nih.gov/sites/nccam.nih.gov/files/news/camstats/2010/NCCAM_aarp_survey.pdf)

# Questions?



Northwestern Health  
Sciences University

Paul Osterbauer,  
DC, MPH



Meghan Coleman,  
DC, DCBCN



Cara Borggren,  
DC

