DETERMINING THE IMPACT OF SENSORY FUNCTION ON AGING

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OBJECTIVE

To determine how sensory functioning affects health and aging among older women.
VISION IMPAIRMENT IS COMMON

• Uncorrected refractive error is the leading cause of visual impairment in the US.

• Loss of eyesight is viewed as the worst ailment that could happen, relative to losing memory, speech, hearing, or a limb.

Lancet Global Heath 2017; 5: e1221-34
BACKGROUND: HEARING AND SMELL

• Hearing loss prevalence doubles with each decade of life and becomes increasingly severe with age

• 25% of older adults have loss of olfaction/smell

• Loss of smell:
  • an early predictor of cognitive decline
  • 46% increased risk of death over 10 years (Liu, Ann Intern Med. 2019. DOI: 10.7326/M18-0775)
• Add sensory assessments to LLS 2 in-home visit:
Contrast Sensitivity

Near Vision

cycle purchase suffer instant expert include start aunt multiple hair panel soar autonomy toward machine entity sponsor drain door portrait honey warm identify winner protein parent disease buyer ugly instruct

Distance Vision

VISION MEASURES
POSSIBLE ADDITIONAL TESTING
IN-HOME VISION TESTING IS FEASIBLE
OTHER SENSORY MEASURES

Hearing Testing: SHOEBOX

Smell Testing: UPSIT
POSSIBLE RESEARCH QUESTIONS

• Impact of sensory impairment on resilience and frailty and ultimately, health outcomes

• Identify common pathways for cognitive decline, systemic comorbidities

• Clinical trial to assess impact of simple interventions for improved sensory function
ULTIMATE GOAL:
To modify the aging trajectory
CURRENT ARVO TOPICS

- Individuals with visual impairment at increased risk of Parkinson’s disease, stroke, MI, and all-cause mortality
- Diabetic retinopathy increases risk of mortality
- PloS 1 – cataract increases risk
- Retina 2018 – late AMD increases risk