

# MAINTAINING AND SUPPORTING FUNCTION IN PERSONS WITH DEMENTIA

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#DementiaCareSummit

## THE PROBLEM



❖ In addition to behavioral symptoms, older adults with dementia are one of the most functionally disabled groups across all settings of care. Moreover they tend to decline more rapidly than would be anticipated with the normal progression of dementia.

❖ Factors influencing the decline include:

- Intraindividual factors: age, medical comorbidities, severity of cognitive impairment, pain, mood, behavioral and neuropsychiatric symptoms, motivation, sedation, and use of psychotropic medications.
- The environment limited opportunity for physical activity, the height of the bed and chairs and the use of wheelchairs with footrests, locked doors/environments, encouragement to remain sitting in the belief that this prevent fall.
- Medical interventions: tethering effects of Foley catheters, geri-chairs, and position change alarm devices.
- Interpersonal factors with care being mainly custodial and caregivers performing functional activities

# SOLUTIONS TO MAINTAIN/ IMPROVE FUNCTION



- ❖ Function Focused Care- Philosophy of care that engages individual in physical activity during all care interactions (Resnick et al; Galik et al)
- ❖ Exercise interventions: inpatient rehabilitation (Mitchell et al) following hip fracture; Aquatic exercise (Henwood et al); Chair Yoga (McCaffrey et al); community based walking program (Vreugdenhil et al); Focused resistive and functional training (Hauer et al); Systematic review of physical activity interventions lasting 12 weeks at least (Potter et al).
- ❖ Multi-domain interventions: 1. multidisciplinary team consultation and intervention addressing pharmacologic issues, implementing physical activity via dance and prevention techniques (e.g, falls prevention) (Liang et al); 2. an adapted Hospital Elder Life Program (Boockvar et al).

# SOLUTIONS TO MAINTAIN/IMPROVE FUNCTION



## Home Based Interventions:

- ❖ Care of Persons with Dementia in their Environments (COPE)-home based profession assessment of patient capabilities and home safety/family training (Gitlin, Winter, Dennis et al).
- ❖ Tailored Activity Program (TAP) –tailored activities for dyads and caregiver education (Gitlin, Arthur, Pierse, et al)

## INEFFECTIVE INTERVENTIONS

- ❖ Green House Models (Yoon et al)
- ❖ Elder Care Supportive Interventions Protocol (ECSIP), which are nursing and family support interventions designed to reduce discomfort and the associated consequences of delirium, impaired physical function, and need for post-hospital care in hospitalized older adults experiencing confusion from delirium or dementia (Miller et al).



## METHODOLOGICAL ISSUES RELATED TO CURRENT WORK

- ❖ Different definitions of function
- ❖ Different measures of function (ADL; IADL; balance; strength; walking; TUG)
- ❖ Small studies—often pilot work with small samples, single groups and short duration
- ❖ No evidence of treatment fidelity
- ❖ Lack of inclusion of combined behavioral and pharmacological interventions
- ❖ Lack of consideration of genetics/omics
- ❖ Lack of consideration of how to disseminate and implement effective approaches

## FUTURE DIRECTIONS



- ❖ Larger longer trials of evidence based interventions (Function Focused Care Approaches; Exercise interventions-particularly those that include functional training)
- ❖ Clear definition function and clarification of appropriate measures of function: activities of daily living versus functional performance (walking speed; get up and go; functional reach)-development of appropriate measures for individuals living with dementia; observed versus reported measures.
- ❖ Dissemination and implementation of effective approaches

## FUTURE DIRECTIONS



- ❖ Multifactorial Interventions:
  - Inclusion of pharmacological interventions with exercise interventions: removal of anticholinergics; use of aspirin; use of antidepressants, mood stabilizers, anxiolytics, antipsychotics as appropriate for the individual based on symptoms
  - Management of pain combined with exercise interventions
  - Use of social supports and exercise interventions
  - Building of motivation, resilience and self-efficacy associated with exercise.

## REFERENCES

- ❖ Boockvar, Kenneth S.; Teresi, Jeanne A.; Inouye, Sharon K.; Preliminary Data: An Adapted Hospital Elder Life Program to Prevent Delirium and Reduce Complications of Acute Illness in Long-Term Care Delivered by Certified Nursing Assistants. *Journal of the American Geriatrics Society* 2016; 64(5): 1108-1113.
- ❖ Hauer K, Schwenk M, Zieschang T, Essig M, Becker C, Oster P. Physical Training Improves Motor Performance in People with Dementia: A Randomized Controlled Trial. *Journal of the American Geriatrics Society* 2012; 60(1): 8-15.
- ❖ Henwood T, Neville C, Baguley C, Clifton K, Beattie E. Physical and functional implications of aquatic exercise for nursing home residents with dementia. *Geriatric Nursing* 2015; 36(1):35-39
- ❖ McCaffrey R, Juyoung P, Newman D, Hagen D. The Effect of Chair Yoga in Older Adults with Moderate and Severe Alzheimer's Disease. *Research in Gerontological Nursing* 2014; 7(4): 171-177.
- ❖ Potter R, Ellard D, Rees K, Thorogood M. A systematic review of the effects of physical activity on physical functioning, quality of life and depression in older people with dementia. *International Journal of Geriatric Psychiatry* 2011; 26(10): 1000-1011.
- ❖ Resnick B, Galik E. Using function-focused care to increase physical activity among older adults. *Annual Review of Nursing Research* 2013;31:175-208.
- ❖ Yoon JY, Brown RL, Bowers BJ, Sharkey SS, Horn SD. The effects of the Green House nursing home model on ADL function trajectory: A retrospective longitudinal study. *International Journal of Nursing Studies* 2016; 53: 238-247 Vreugdenhil A, Cannell J, Davies A, Razay G. A community-based exercise programme to improve functional ability in people with Alzheimer's disease: a randomized controlled trial. *Scandinavian Journal of Caring Sciences* 2012; 26(1): 12-19.