

# TOILETING

Making the  
most of our  
time in the  
bathroom

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# OBJECTIVES OF PRESENTATION

- Define occupation of toileting as BADL
  - Older adults
  - Skilled nursing, community environments
- Discuss factors influencing performance using the PEO model lens: Person, Environment, Occupation
- Introduce toileting aids, The Freedom Wand highlighted
- Provide overview activity analysis
- Highlight results found in research literature review for evidenced based interventions to address toileting issues

# OCCUPATIONAL THERAPY OWNS TOILETING

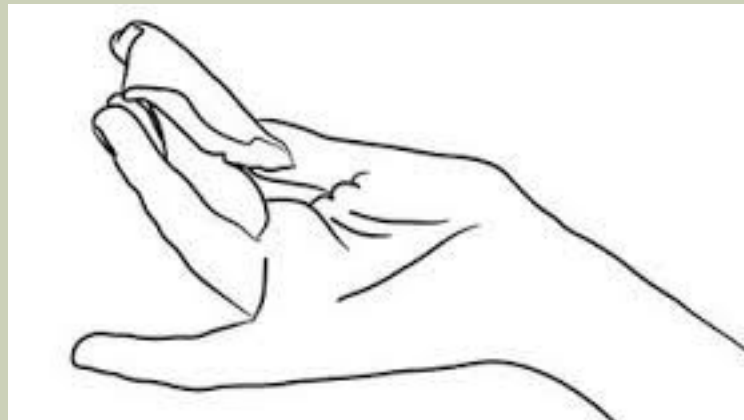
- Every day life activity
- Enhancing and enabling participation in habits, routines
- Performed in every location
- Identified as Basic Activity of Daily Living
- Defined in AOTA practice framework
- Highly personal, functional, necessary, and meaningful

# CLIENT FACTORS

- “ ‘Oh thank God I can go myself to the bathroom..... You would think it’s nothing. You’re young. You’ll understand when you’re older, but the best thing in your life is when you can go yourself to the bathroom”. (p.130)-Rhoda Makover



- “Most of ‘My Way’ of doing things is known only to me....Because most of these activities are done in isolation. Do you know how many squares of toilet paper your spouse or loved one uses? Do they fold it before they use it; do they stand up before wiping? Although this may seem irrelevant, each individual routine becomes subconscious and tends to occur exactly the same way every day and every time.”-Lanny Butler, MS, OTR



# PREFERENCE IN TOILETING HABITS

- “Incorporating lifelong practices and preferences into care routines provides a sense of familiarity to the older person, which can be comforting.” (Cohen-Mansfield and Jensen, 2005)
- Survey of 58 community dwelling seniors using SHAPE questionnaire
  - 1 out of 3 women surveyed used briefs, men did not report
  - Most frequent problem is bladder continence
  - No literature available giving description of daily behavior pattern and preferences.

# PREFERENCES

- Frequency of use is 4-6 times for day for both women and men, with some as much as 31% higher. Less frequent use was not mentioned.



- Toilet tissue most commonly used bathroom product.



- Use of self care advanced directives from patient rather than family members recommended.

# SELF CARE ADVANCED DIRECTIVE

## Appendix 1

### "My Way" An Advance Directive

To Whom it may concern:

In the event that I should become cognitively impaired, I wish to record my preferences:

#### 1. Sleep/Wake Cycle.

I maintain the following overall schedule:

Time I usually arise: \_\_\_\_\_

Nap times: \_\_\_\_\_

Time I usually go to bed: \_\_\_\_\_

Rely on clock to wake up  Yes  No

My side of the bed is  Right  Left

#### 2. Self-care routines.

I am accustomed to doing the following activities in the order indicated (1 = the first activity I do upon arising, 2 = the second etc.)

- |   |   |
|---|---|
| <input type="checkbox"/> Bathe                        | <input type="checkbox"/> Read the paper |
| <input type="checkbox"/> Brush my teeth               | <input type="checkbox"/> Shave          |
| <input type="checkbox"/> Comb my hair                 | <input type="checkbox"/> Use the toilet |
| <input type="checkbox"/> Apply make-up                |   |
| <input type="checkbox"/> Dress                        |   |
| <input type="checkbox"/> Eat breakfast                |   |
| <input type="checkbox"/> Make/drink a cup of coffee   |   |
| <input type="checkbox"/> Feed the pets/animals        |   |
| <input type="checkbox"/> Take medication(s)           |   |
| <input type="checkbox"/> Watch TV news/weather/sports |   |

#### 4. Toileting.

Please check (and complete) your preferences:

- I do not use public toilets
- I use the toilet immediately upon arising in the morning
- I get up \_\_\_\_\_ times during the night to use the toilet
- I don't believe in wasting toilet paper
- I use lots of toilet paper
- I fold the toilet paper neatly before use
- I shut the bathroom door when I use the toilet
- I need to sit awhile for my system to become active
- When I "get the urge" I have to go "NOW"
- I read while I sit on the toilet
- I always stand when I urinate

#### 5. Dressing/Undressing.

Please check (and circle) your preferences:

- I sleep in the nude
- I sleep in my underwear
- I sleep in pajamas
- I sleep in a nightshirt/nightgown
- I stand while I dress
- I sit while I dress
- I put my (left/right) arm into cardigan-type garments first
- When putting on cardigan-type garments, I put both hands in together & slip it over my head
- I put my (left/right) foot into lower extremity garments first

# BODY FUNCTIONS

- Visual Functions
- Hearing functions
- Vestibular Functions
- Pain
- Joint mobility and stability
- Muscle power, tone, endurance
- Movement functions
- Cardiovascular/respiratory functions
- Genitourinary functions
- Digestive/metabolic functions
- Skin functions

# TOILETING DISABILITY

- Factors associated with Toileting Disability in Older Adults Without Dementia Living in Residential Care Facilities (Talley, Wyman, Bronas, Olson-Kellogg, McCarthy, Zhao, 2014)
- **Toileting Disability** “having difficulty with or requiring human or mechanical assistance with toileting.”
  - “Does the resident currently receive any assistance using the bathroom?” Answer: Yes

# FACTORS AFFECTING TOILETING DISABILITY

## ■ Factors:

- Reporting fair or poor health
- Living in a facility with 4 or less residents
- Living in a for profit facility
- Having bowel or bladder incontinence
- More physical impairments
  - Ability to walk, stand, sit, stoop, reach, grasp, transfer positions, bath, disrobe and maintain continence
- Visual /hearing impairments
- Needing assistance with bathing, dressing and transferring

# ACQUIRED TOILETING DISABILITY

**Screening question: Do you have any trouble controlling your bladder; do you lose urine when you do not want to?**

- 17% developed new UI at discharge, with odds of developing new UI found to be 4.26 higher for UC users and 2.62 higher for diapers.

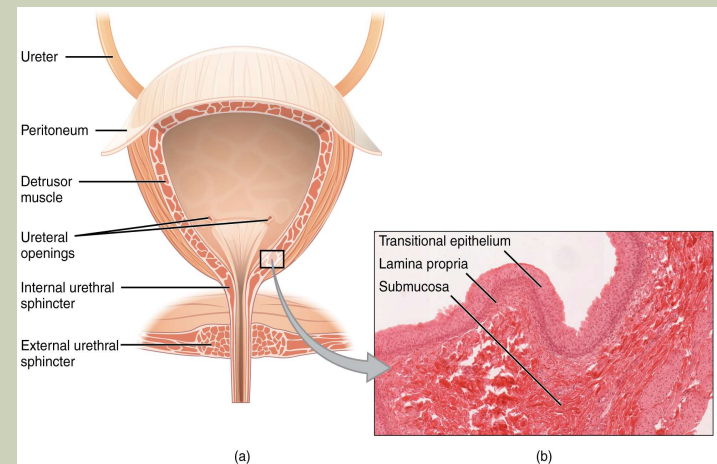


# ACQUIRED TOILETING DISABILITY

- Environmental barriers
- Incontinence status established from participant and surrogate reports, rather than from medical records, usually based on care provided.
- 44% of cases had indication for catheter: output for retention
- New UI diagnosis characteristics include:
  - Older age
  - Poorer cognition
  - Higher illness severity
  - 2 days longer stay

# URINARY HEALTH

- Age doesn't cause urinary incontinence, age-related changes may predispose an individual
- Aging bladder associated with
  - a reduced bladder capacity,
  - increase in uninhibited contractions ,
  - decreased urinary flow rate,
  - diminished urethral pressure profile,
  - increased post void residual urine volume.
- Key underlying mechanisms of voiding dysfunction
  - deterioration of detrusor muscle function,
  - bladder wall fibrosis
  - increased sensitivity to neurotransmitters.
- Nocturia swelling in lower extremities and nighttime urine production



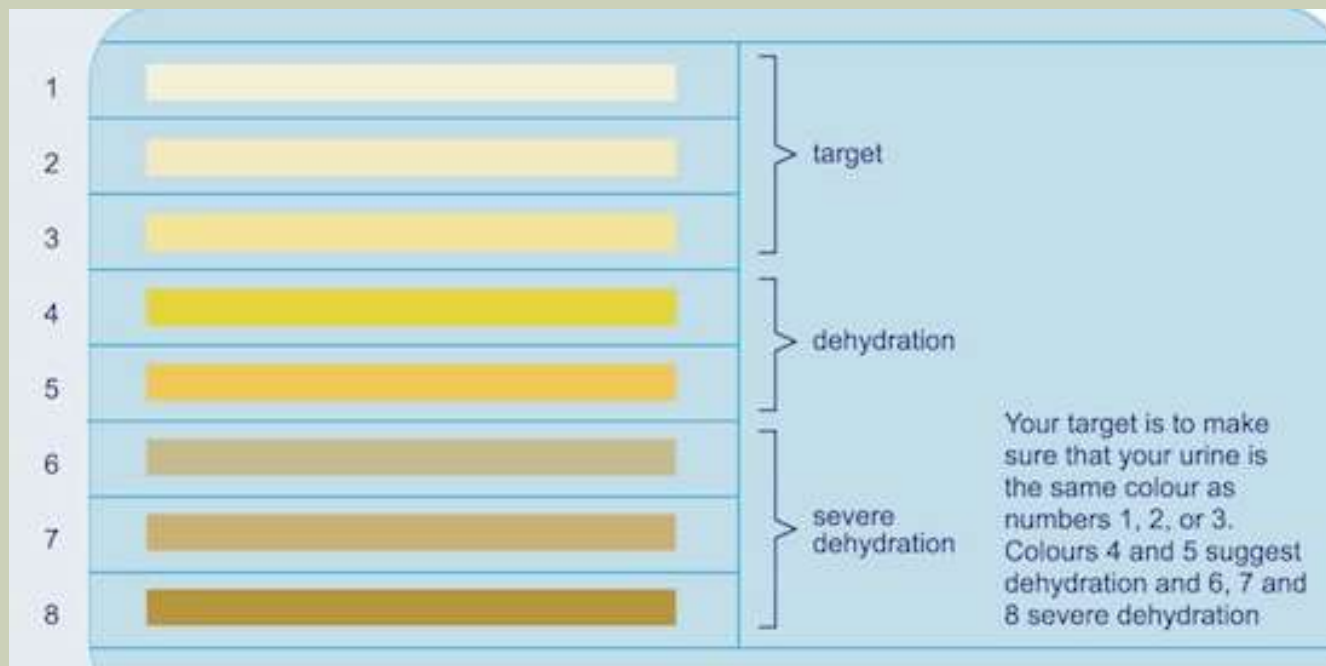
# URINARY HEALTH

- Incontinence-affects up to 69% of the female population at some point in their lives.
- “the complaint of any involuntary urinary leakage”-  
International Continence Society
- Stress Urinary Incontinence (SUI) –involuntary leaking of urine during effort or exertion, or while sneezing or coughing.
- Urgency Urinary Incontinence (UUI)-involuntary leakage of urine accompanied by or immediately preceded by a sudden compelling desire to pass urine, which is difficult to defer.
- Mixed Urinary Incontinence (MUI)

# QUALITY OF OUTPUT

## ■ Urine Color

- Water is good
- Lemonade is okay
- Apple juice needs more hydration
- Coca cola need medical attention for dehydration



# QUALITY OF OUTPUT

## Bristol Stool Chart

Type 1		Separate hard lumps, like nuts (hard to pass)
Type 2		Sausage-shaped but lumpy
Type 3		Like a sausage but with cracks on the surface
Type 4		Like a sausage or snake, smooth and soft
Type 5		Soft blobs with clear-cut edges
Type 6		Fluffy pieces with ragged edges, a mushy stool
Type 7		Watery, no solid pieces. Entirely Liquid

# SUMMATION OF PERSON

- Preferences of older adults in self care
- Importance of habit and routine for comfort and optimal participation
- Physiological changes associated with age and/or illness
- Urinary health and higher incidence of incontinence secondary to changes with age.

# ENVIRONMENT

- Design for all approach (Demirkan and Olgunturk, 2014)
  - Practical application of universal design
  - Demands for all users should be valued on equal terms and the ones that should be excluded should be made consciously. All users defined to include people with disabilities, elderly and average users.
  - Research to determine if there is a significant difference among adults, elderly and adults with disabilities and visual impairments in terms of approach to produce a priority based list.
  - Survey method, 161 individuals in Turkey, 21-61, male/female, 60 adults, 35 elderly

# ENVIRONMENT

Top nine items as they relate to bathroom/toileting:

- #1 Adequate illumination level in all spaces (bathroom)
- #3 Adequate space for approach and use: All controls (light switches, window/door operators, electric outlets, etc) to require little effort
- #4 To have color contrast between the counter top and lavatory in the bathroom.
- #5 Ease of use in accessories: Faucets to be used easily in bathroom.
- #7 Provision of privacy and safety in the bathroom
  - Toilet to be used without help
  - Tub shower to be used without help
  - Toilets need to be used with low effort and minimum fatigue
- #8 Safety of floors in all spaces: Floor to be slip resistant in the bathroom.

“Perhaps it is more useful to think of everyone as possessing varying degrees of ability and disability instead of either fully-abled or disabled”  
(Duncan, 2007)

# ENVIRONMENT

- Location of restroom

- Presence of a bathroom inside resident's room/apartment not associated with toileting disability, but survey did not ask about spaciousness of bathroom, presence of grab bars, and height of the toilet seat (Talley, 2014)

- Toilet

- Wash and dry toilets in nursing homes (Mansfield and Biddison, 2005)

Results:

Technology beneficial for about half of residents in study

No significant adverse affects encountered.

Product improvements needed.



INAX  
LUSCENCE  
LUXURY  
LAVAGE

Add on seat in  
elongated or  
round with  
remote wall  
unit.

# ENVIRONMENT

## ■ Grab bars

- Smart Grab Bars (Guitard, Sveistrup, Fahim, Leonard, 2013) in bath transfer
- Using visual, auditory and audio-visual cueing, smart grab bar use increased by 39% after removal of cues.
- With grab bar use, decreased use of other structures. Those with hip/knee/leg and visual issues had higher bar use.
- Participants self-reported cues not helpful, but shown to have effect on behavior. Visual preferred, but auditory most useful
- Most participants had no grab bars in home.
- Grab bars must be grasped prior to transfer being attempted.
- Stigma associated with grab bars seemed to outweigh perceived usefulness.
- Promote use of grab bars in all homes like seat belts in cars.



## GRAB BARS RED EFINED

Invisia design  
for stylish grab  
bars to  
incorporate  
into bathroom  
design.



# ENVIRONMENT

- Soap and towel
  - Type
  - Location
  
- Lower Body Clothing: Briefs, pants, shoes
  - Underwear, pad, brief-tab or pull up
  - Waist and closure design
  - Rubber bottom, closure, washable
  
- Roommate
  - Voiding frequency
  - Hygiene habits
  - Sense of privacy
  
- Staff
  - Demeanor and ease
  - Familiarity
  - Level of trust
  - Gender

# ENVIRONMENT

- Objects needed for pericare
  - Toilet Paper
  - Wet wipes: disposable and degradable
  - Portable bidet
  - Pericare aid
    - Freedom Wand
    - Bottom buddy
    - Groovy
    - Home made

# PERICARE

## ■ Freedom Wand



What would you rather ask someone to help you with...put on socks or wipe a dirty bottom?

Deborah Tacoma



PERICARE  
AIDS

Bottom Buddy

Jobar Long  
Reach Comfort  
Wipe



## SQUATTY POTTY

Voiding  
position  
enhanced with  
raised feet to  
mimic  
squatting.

# DURABLE MEDICAL EQUIPMENT

- Mechanical lift
  - Slings
- Wheelchair or walker
  - Brakes, length, strength, cueing
  - Armrests, height, hinge or pin for moving
- Raised toilet seat
  - Drop arm
  - Bariatric
  - Height, funnel, opening size
  - Over the toilet or lock in with handles
- Bed side commode
- Urinal
- Bedpan

# SUMMATION OF ENVIRONMENT

- Evidence for importance of environmental supports for all users
- Technological enhancements improve comfort and safety
- Features of DME and task objects should be considered to personalize and enable participation to establish safe routine.

# ACTIVITY ANALYSIS: STEPS TO TOILET

- 1. Have urgency to empty bowel or bladder
- 2. Perform functional mobility to enter restroom.
- 3. Open door to restroom
- 4. Close door to restroom
- 5. Position body in front of toilet.
- 6. Doff LB clothing to access anus, vagina and/or penis.
- 7. Sit down or stand in proper proximity for elimination.
- 8. Urinate and/or defecate
- 9. Clean off urine or fecal matter from skin surface.
- 10. Don LB clothing
- 11. Perform functional mobility to sink.
- 12. Wash and dry hands at sink.
- 13. Exit bathroom.

# OCCUPATION

- Avoid denying urge to urinate. Every 3-6 hours. Hydration to avoid irritants of concentrated urine.
- Sequencing of task
  - UTI prevention
- Positioning for voiding
- Take time to relax and allow muscles to work.
- Time duration needed
- Activity energy demands
- Privacy, sensory, psychological components
- Personal standards of hygiene
- Daily routine at home versus in rehab facility
- Natural versus prescribed schedule

# OCCUPATION ORGANIZATION

- Task simplification
- Education of client and caregiver
- Accommodation and compensatory strategies to enhance participation.

# INTERVENTIONS

## ■ Lifestyle interventions

- Fluid intake during the day: ideally 8 glasses of 8 oz throughout day
- Reduction of caffeine
- BMI > or = 30 weight reduction can reduce incontinence
- High fiber food to avoid constipation
- Increased physical activity can improve walking, balance, transfers on and off the toilet.

## ■ Behavioral therapies

- Pelvic floor muscle exercises according to specific protocol
- Timed voiding (cognitive impairments) with support of caregiver
- Habit retraining using bladder diary to develop toileting schedule
- Prompted voiding with cueing initiation and assistance.
  - Contraindications: 2 person assist, >1/3 successful voiding, no greater than 20% decrease in incontinent episodes

# INTERVENTION

- “Occupational and physical therapy could be used to improve dressing, bathing, and transferring skills” (Talley, 2014).
- Physical activity programs targeting impairments with walking, standing, sitting, stooping, reaching and grasping, and therapy to improve dressing and transferring skills.

# INTERVENTIONS

- Systematic review of intervention studies of incontinence management in care homes, 1966-2010 (Flanagan, et al, 2012)
- RCT
  - Prompted voiding
  - Does not change from dependent to independent
  - Medication contributed to reduction, but not clinically meaningful
  - Exercise might contribute to wetness reduction and toileting improvement.

# INTERVENTIONS

- “Incondition program”
  - Strength of pelvic floor muscles
  - Bladder control: knowledge about continence, position/relaxation toilet behavior,
  - Mobility
  - Accessible, fun and easy to understand
  - Low intensity
  - Weekly 1 hour training for 6-10, 22 weeks
- Care as usual
  - Incontinence pads
  - Toilet assistance
- “Over the course of our study, it became apparent that, in most homes, the emphasis is on controlling incontinence at an institutional level rather than on solving or preventing it at an individual level” (Tak et al, 2012)

# INTERVENTIONS

- Determine the feasibility and effect of training and mobility skills on dependent, non demented, elderly women with long standing urinary incontinence (Van Houten, Acterberg, and Ribbe, 2007)
- 8 week training course of mobility and training course provided by PT/OT.
- Results:
  - 37.7% reduction in urine lost
  - 3 women became continent in control group
  - 6/2 women dependent to independent toileting in intervention /control groups
  - Not statistically significant, however significant effect on daytime sum score of toilet timing test.
  - High motivation was a key factor in use of toileting skills.

# INTERVENTION

- POTTI test: Time a participant needs to perform the subsequent tasks associated with going to the toilet under standardized circumstances.
  
- Time Need to Perform Task
  - Walking Participants:
    - 1. Get up from a bed /get up from a chair
    - 2. Walk 5m
    - 3. Undo a hook, button or zipper
    - 4. Let down garments and sit down on the toilet
    - 5. Rise from the toilet and adjust garments

# INTERVENTIONS

- Participants in a wheelchair
  - 1. Get up from a bed.
  - 2. Ride 5 m in the wheelchair
  - 3. Undo a hook, zipper, and button.
  - 4. Transfer from the wheelchair to the toilet (including letting down garments and taking seat on the toilet.)
  - 5. Transfer from the toilet to the wheelchair and adjust garments.
  
- Limitations of study:
  - Toileting provisions were poor, average distance with 11.4 m, obstacles in path, unclean toilets, lack of privacy.

# INTERVENTIONS

- Effectiveness and cost of home visits with photos and photos only for OT home visits (Sim et al., 2015) Australia
- Home visits conducted at discharge to
  - Identify/modify hazards
  - Prescribe equipment
  - Facilitate functional independence
  - Enhance safety
  - Minimize need for care services
- Guidelines for photographs to include:
  - Steps
  - Curbs/thresholds to shower area
  - Rim of bath
  - Position of toilet bowl in relation to wall
  - Position of toilet roll holder
  - Taps

# INTERVENTIONS

- OTs in home had patient perform functional tasks and ordered equipment requiring physical space precision.
- Photos only led to over prescription
- Providing adequate equipment upon discharge:
  - Dimensions of home space
  - Confidence of family members in taking photos
  - Detailed patient information

# INTERVENTIONS

- Medications dosing:
  - “For older adults who need assistance with toileting, no matter how effective a medication is in improving bladder function, without caregiver diligence in providing timely toileting assistance the therapeutic effects of the medication will be rendered useless.” (New Journal of Geriatric Care Management)

# INTERVENTIONS

- Analysis of 2004 National Long Term Care Survey (NLTC) of community and institutionalized populations aged 65 and older.
  - ADL/IADL
  - Disabilities
  - Helpers/ hours of help provided
  - Equipment use
  - Medical conditions
  - Cognitive functions
  - Demographic and socioeconomic characteristics
- Community dwellers with functional impairments living at home interviewed

# INTERVENTIONS

- Respondents with formal Personal Assistance Service (PAS) in past week usually had much higher proportion of assistive technology use than respondents without formal PAS hours.
- Women, older, who had Medicaid coverage and who were more ADL/IADL impaired had a greater likelihood of using formal PAS.
- Assistive technology for bed transfer and toileting was each associated with a 4 hour increase in formal PAS hours in the past week.
- “Some assistive technology may make the job of formal caregivers easier even if it modestly increases formal care hours.”  
(Anderson, 2013)
- Assistive technologies may not be accessible because of lack of knowledge, unfamiliarity with sources or insufficient resources to pay for them. Could increase quality of life for users and allow caregivers respite or work time.

# INTERVENTIONS

- Family Caregiver Training Program to assist with BADLs (DiZazzo-Miller, et al. 2014)
- Informal caregivers given training on six ADLs, including toileting and transferring, 2 hours each with presentation, short explanation, group discussion, real-life demonstration and role playing.
- Statistically significant gain in knowledge pre/post test, but only 10 caregivers completed follow up questionnaire 3 months post training.

# INTERVENTIONS

- For patients with dementia,
- What is the range and variation of toileting problems?
- What management strategies are used by family and employed caregivers?
- What interactive and contextual conditions influence the experience and management strategies?
  
- Nursing researchers used ethology method in AD day care center.

# INTERVENTIONS

## ■ Findings:

- Staged event: beginning, middle, end
- Rely on reading the cues by staff to assist with cueing
- Unpleasant and unaesthetic encounter
- Catastrophic reactions
- Disrupting the sentimental order of comfort, relaxation, home-like

## ■ Intervention Strategies

- Form a ideology or explanatory model
- Interpretation based on previous life experience
- Prevention of accidents with routine toileting at center and home
- Preserving dignity
- Providing physical and cognitive assistance
- Preventing catastrophic events

# INTERVENTIONS

- Factors which influence experience and strategies
  - Client variables
  - Staff variables
  - Contextual variables
  
- Toileting problems must be treated symptomatically, however without effective strategies, declines in functional status and overall quality of life will occur
  - Loss of bodily functions
  - Deterioration of self esteem and self concept
  - Loss of social functioning
  - Role status change

# SUMMATION OF INTERVENTIONS

- Focus on individualized continence management with voiding schedules and enhanced physical activity can lead to decreases in wetness, but rely on caregiver diligence and patient motivation.
- Environmental enhancements and assistive technologies can improve ease of task for caregivers and patients, but may not lead to decrease in time for caregiving.
- Formal caregiver training on BADLs was found helpful to participants but additional research needed to verify effectiveness.

# SUMMATION OF INTERVENTIONS

- Patient time needed to toilet was improved with mobility training and use of grab bars improved with cueing, particularly auditory.
- Medications alone are not effective.
- Home visits conducted by occupational therapist lead to more accurate equipment ordering with a better match to home environment.
- Acquired toileting disability should be addressed following hospital discharge for optimal independence.

# SUMMATION OF INTERVENTIONS

- To intervene effectively with AD clients,
  - Follow routine toileting to meet personal routine
  - Be vigilant in reading verbal and behavioral cues
  - Respond to cues consistently
  - Communicate with families about changes, problems and strategies.

# REFERENCES

- Reference list available upon request with email sent to presenter. See title slide.