

Objectives

Recognize symptoms of frailty in residents with dementia

Describe water-based activities for each functioning level to prevent loss of function



ALL FUNCTIONING LEVELS

Frailty and dementia: How activities professionals can help through water-based activities

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The medical literature defines frailty as older persons experiencing low physical activity levels, muscle weakness, slowed physical and cognitive performance, fatigue, and unintentional weight loss.¹ A person with three or more of these characteristics is considered frail. Older persons who have dementia are more likely to become disabled, to be admitted to the hospital, and to have health problems that lead to frailty. These individuals are often resistant to exercise classes and need motivation.

Older adults with dementia need activity in their lives as prevention to frailty. Research has shown that residents with dementia, depression, or long term medical problems are at highest risk for serious negative outcomes. Frail individuals often have poor immune function and infections are common. Programs that will help maintain muscle mass, improve appetite and nutrition, and increase opportunities for independent movement and personal hygiene are important in the plan of care.

Prevention of frailty in residents with dementia

- Residents with dementia and the symptoms mentioned above must get some physical activity into each day, structuring the exercise according to the person's abilities. One of the best offerings is walking. Supervised walking is useful to improve heart fitness, balance, and muscle mass. Exercise classes should use resistance. Weights or bands build muscle and help to reduce joint stiffness and pain. Even small gains in strength and endurance can improve symptoms of frailty.
- Residents with dementia must also keep the mind active on a daily basis. Reading groups, brain fitness

classes, playing cognitive table games or cards, and socializing are all good ways to maintain mental sharpness and ward off frailty.

- If your residents seem sad, isolated, have changes in eating or sleeping habits recognize these may be symptoms of depression. Depression adds to an inactive lifestyle and medical problems. Discuss these symptoms with the care planning team and treat depression, and underlying medical problems to prevent progression of frailty.
- Include cooking and fine dining offerings to residents at risk for frailty. It is vital that these residents maintain good nutrition. When providing cooking classes always work toward a balanced diet that includes protein (to maintain muscle mass), fruits and vegetables, fiber, and fluids.
- Consider aquatics or water-based activities for residents with dementia who are at risk for frailty, especially if they enjoyed the water or swimming in the past.

Consider aquatics activities programs

One of the best forms of safe exercise is activity in a pool. As more continuing care retirement communities (CCRCs) add aquatics environments, we have the opportunity to provide regular water-based activities that will increase appetite, endurance, strength, and reduce pain. Often residents with dementia are not included in aquatics programs but it may be the perfect activity considering the needs listed above. Even without a pool residents can enjoy aquatics at the local YMCA or warm water pools. There are times when you can rent the pool for your program and transport your residents to a community-based activity.

Don't rule people out without checking with them personally about water activities in the past. Ask about swimming as you talk with families. Often people who will not exercise in your group exercise classes enjoy walking and movement activities in water because it reduces stress on muscles, bones, and joints. By using personal floatation devices participants are able to move without fear and enjoy tossing a beach ball.

Don't rule out water based activities even if you do not have access to a pool. The protocol that follows provides activities that can be done in your outdoor area.

Water-based activities without a pool

Goals: To reduce risk of frailty and resistance to personal hygiene by desensitization to water by routinely providing water games and activities during warm weather months.

Staff requirements: one aquatics therapist, nurse, or other activity professional, use a volunteer or CNA to assist if more than three residents.

Entrance criteria: Displays physical decline, lack of movement, poor nutritional status, or resistance to personal hygiene especially to bathing. Also for those who attempt to wander away during personal hygiene. May also be used with residents with depression and apathy that affects personal hygiene. Residents with dirty hands and nails who are resistant to care. May be adapted to residents at all stages of dementia.

Exit criteria: No longer displaying target behaviors, repeatedly refusing to participate in group, no improvement in behavior, or behavior repeatedly has negative impact on participation of others.

Group size: Maximum of three residents per qualified staff member

Duration: 20 to 30 minutes

Safety considerations

Environmental risks: Ensure adequate space for each resident so that residents are not getting others wet. Keep towels and/or mops handy to keep floor dry. When using water for residents make certain that it is at tepid temperature.

Resident risks: No specific risks, resident could get clothing wet. Remove any jewelry that might get ruined or slip off when hands get wet. If outdoors, make certain it is not too windy or chilling may occur.

Facility and equipment required

Facility: Preferably outdoors, room with table large enough to hold all residents and chairs. If weather does not permit being outdoors, find an area that it is safe in the event of water spilling.

Equipment: Varies depending upon activity. See below. Have a supply of clean dry towels. Use plastic rain parkas, or aprons to prevent resident from getting excessively wet. Also have other summer items on hand such as blowing bubbles, pinwheels or beach balls.

Methods

There are numerous water activities that can be chosen from for your group. Before actually starting any water activities with new residents have at least one discussion session to determine their readiness to interact with water. Avoid topics concerning water that may cause fear or anxiety such as floods, hurricanes, or drowning.

Discussion should first touch on factual information about water:

- What is water?
- What forms does it take? (Liquid, frozen, snow, clouds, rain, hail)
- Where do we find water? (Rivers, lakes, ocean, ponds, bays)
- What is the difference between water in the ocean and water in the lake? (Salt)
- What kinds of animals live in water? (Fish, frog, crabs, starfish, alligators, otters)
- What do we do with water? (Drink, play, bath, clean with it, laundry, dishwasher, hydrate our plants)
- What do we make with it? (Coffee, tea, soup, mixed drinks, gravy etc).



Key Ingredients

Programs that will help maintain muscle mass, improve appetite and nutrition, and increase opportunities for independent movement and personal hygiene are important in the plan of care.

- Have pictures of oceans, lakes, someone washing a car, snow and other water items. This part should take one full session.

Discussion should then move to personal history and preferences concerning water. The questions should start with "safe water questions." Do not move on to the personal water topics until everyone in the group is participating and talking in this part of the program. Sample safe-water questions:

- Do you know how to swim?
- Who taught you?
- Do you prefer swimming in the ocean, lake, pool or other?
- Did you ever swim in a race?
- Did you ever ice skate? Did you use figure skates or hockey skates?
- Did you ever go snow skiing? Water-skiing? Which do you prefer?
- Did you ever go sled riding? Ride in a horse drawn sled?
- Did you ever ride in a motorboat? Ferry? Cruise ship? Battleship? Which do you prefer?
- Did you ever build a snowman? A snow fort? Did you ever get into a snowball fight?
- Did you ever build a sandcastle at the beach?
- Did you ever own a house with a pool? A pond? On a lake or river?

Discussion should move from safe water questions to personal water questions.

- Did you ever own a house with an outhouse?
- Do you prefer taking a shower or a bath?

- How do we teach children to wash their hands after using the toilet?
- How can we get them to brush their teeth?
- How often should they take a bath?
- How often should adults bathe?
- Do you prefer soap that is scented or non-scented?
- Do you like to use a washcloth when you bathe?
- Do you like to use conditioner when you wash your hair?
- How often do you need to wash your hair?

Again you may want to use photographs, picture or other props such as scented soap.

Once determined that the residents are comfortable talking about water the next step is to introduce water activities. Only do one activity per session and have some discussion time afterwards.

Start with activities that have the least water contact then gradually move to activities with maximum contact. End each session with a song or poem about water, snow, swimming, or rain. Make sure resident hands are dried at the end of the session and offer hand lotion for your resident to rub in.

Water activities (from least water contact to most contact)

Scooping for ducks: Get six or so rubber ducks and with waterproof marker write a number on the bottom of each. Place the ducks in a basin of water. Have resident attempt to scoop up a duck using a small net or strainer. Have the resident check the bottom of the duck, that is their score or offer a small prize. Or instead of all ducks have a variety of rubber bath toys for scooping and ask them to try and pick up the cat or the frog, until they are all out.

Boating: Use basin as above but in place of the ducks uses various boats, sailboats, and other water crafts. Provide residents with either small dowels or straws to push or blow the boats around. Other options are wind-up boats and other wind-up figures.

Water pistols: This activity should only be done outdoors. Provide residents with water pistols that do not require too much grip strength. It is best to find ones that are the shape of anything other than a gun so not to frighten anyone. Set up targets such as a target board, ground target and other objects for the resident to try and hit.

Water balloons: Fill small-sized balloons with water and have them in a container. Have residents see how far they can throw the balloon. Encourage them to throw them further each time. Pick up the broken balloons as soon as this program is finished.

Water balls: Same as above except use the balls that soak up water so that residents have contact with the water. Squeeze some of the water out of the ball before handing to resident so it does not drip on their laps.

Waterwheel: Use a small wading pool that can be placed on top of a table at a level that the residents can easily get their hands into. Provide water type toys designed for pouring, scooping and manipulating water. A waterwheel works well for this.

Water treasure hunt: Use wading pool as above. Drop into the pool interesting objects that will sink to the bottom. This might be a key, a bolt, a shell, a rock etc. Have about 12 or so items. Name one of the items and see if the residents can find it. Continue until all items are named.

Sink or swim: Gather an assortment of about 12 or so items, half of which will sink and half which will float. Give one of the items to a resident and ask them if they think it will sink or float. After the resident answers ask the others in the group if they agree with that idea. Then have the resident drop the item in and see what



Hint

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it does. Continue until all of the items are tested. At the end have the residents fish all the items out.

Cool those feet: Place small wading pool on ground, fill with water and add some soft floating toys. Remove residents' shoes and socks and have resident sit near edge of pool so they may put their feet in the pool. Encourage resident to move feet and objects in the pool. A glass of lemonade or a container of bubbles to blow makes this a relaxing program.

Baby's bath time: Provide baby tabletop bathtub, waterproof doll, washcloth, soap and towel. Baby dolls are not for every resident. (See the protocol for Nurturing Dolls) Reaction to the doll should be tested prior to attempting this activity.

Sensory hand washing: Provide small basin of water, scented soap, bathing sponges, towels and hand lotion for residents to do a luxury hand washing.

Washing the dishes: Provide basin of water, break-proof dishes, glasses and silverware, dishcloth or sponge and dishtowel for resident to wash the dishes.

Washing the clothes: Provide basin of water, liquid soap and small articles of clothing such as stockings, socks, handkerchiefs to wash. Change water for rinsing. Optional is to provide a small clothes scrubber.

Bridging activity to personal hygiene

Some of the residents may feel more comfortable around water at this point and may be less resistant to personal hygiene. For those who are not there are other steps to take at this point.

The first is to take a prop from a water activity that the resident really enjoys and ask the resident if he/she would like to use it the next time he/she takes a bath/shower. This could be a rubber doll, rubber duck, or a small boat.

Another method is to invite the staff member, who usually bathes the resident, to attend the water activity group. In this

way the resident and the staff member may form a better relationship concerning water.

Possible resident objectives

- Improved activity levels
- Increased comfort around water as evidenced by washing hands and face without agitation.
- Decreased passivity as evidenced by participating in program.
- Decreased restlessness as evidenced by remaining in program.
- Improved small group socialization as evidenced by verbalizing with at least one other person in the group during each session.
- Improved mood as evidenced by positive comments about experience and/or by a happy expression.
- Decreased wandering by remaining in program
- Reduced or resistive or aggressive behaviors during personal hygiene.

Reference

1. Information pages from the *Journal of the American Medical Association*, Vol. 296 No. 18, November 8, 2006.

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