Published in final edited form as:
J Gerontol Nurs. 2008 January ; 34(1): 13–18.

Prescribing Activities that Engage Passive Residents. An Innovative Method

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Abstract

Individuals with dementia are often passive, which places them at risk for further cognitive and functional decline. Recreational activities have been used in research to reduce passive behaviors, but systematic reviews of these studies have found modest effect sizes for many activities. In this article, we describe the further theoretical development of an innovative method for prescribing activities that have a high likelihood of engaging nursing home residents who are passive and present examples for research application and clinical practice. This method may increase the effect size of activity interventions and encourage more widespread adoption of nonpharmacological interventions in practice.

Passive behaviors are among the most common behavioral symptoms of dementia. Most nursing home residents with dementia will exhibit passivity at some point during the disease (Galynker, Roane, Miner, Feinberg, & Watts, 1995; Mega, Cummings, Fiorello, & Gornbein, 1996). Passivity is characterized by fewer displays of human emotions, withdrawal from interactions with others and surroundings, and a decrease in motor activity (Colling, 1999). Many nursing home staff do not view passive behaviors as problematic because they draw less attention than the more active behaviors of agitation and aggression (Canberg et al., 1999). However, residents who are withdrawn are vulnerable to the effects of isolation and inactivity and are at high risk for further cognitive and functional decline (Harwood, Barker, Ownby, & Duara, 2000). Because of these negative outcomes, a need exists for empirically based interventions that successfully engage passive residents.

Recreational activities have been used in research studies to reduce passive behaviors and prevent functional decline, but recent systematic reviews of these studies have found modest effect sizes for most activities (Ayalon, Gum, Feliciano, & Areán, 2006; Livingston et al., 2005). A lack of high-quality research seems to be at issue. Many studies are characterized by small sample sizes, high attrition rates, and the prescription of activities in an undifferentiated fashion. This latter problem is the target of our methodological approach.

Because residents with dementia have difficulty communicating their specific activity interests, one methodological improvement in the identification of interests has been the development of preference lists for use by informants (Carpenter, Van Haitsma, Ruckdeschel, & Lawton, 2000; Teri & Logsdon, 1991). Although this approach has helped activity prescription, there

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are several limitations. Reid, Everson, and Green (1999) found that of the activities reported by staff to be preferred by patients, only 42% were moderately interesting, based on patients' actual approach/avoidance responses. Further, as cognitive and physical abilities change, individuals with dementia may not be able to engage in activities they once found enjoyable. Some activities may lead to extreme frustration because of the mismatch with the individual's current skill level. Finally, there is the difficulty of capturing the full universe of activity interests in an instrument that does not burden informants.

In our ongoing interdisciplinary research in nursing homes, we have found that activities tailored to the functional ability and prominent aspects of the resident's personality results in higher levels of engagement and less passivity than do non-tailored activities (Kolanowski, Litaker, & Buettner, 2005). In this article, we describe the further development of this innovative method for prescribing activities that have a high likelihood of engaging passive nursing home residents, and we offer examples of these activities for research application and translation into clinical practice. It is our goal to increase the effect size of activity interventions in studies that test their efficacy and to encourage more widespread adoption of non-pharmacological interventions for passivity and other dementia-related behaviors.

THEORETICAL BACKGROUND

Caregivers report that passive behaviors are among the most difficult behaviors they handle on a daily basis (Everitt, Fields, Soumerai, & Avorn, 1991). Clinical observations suggest that passive behaviors may represent a need to modify the amount of stimulation in the environment. Self-reports from individuals with early-stage dementia indicate that many find it necessary to withdraw from overstimulating environments (Snyder, 1999). In one study, caregivers of individuals with mild, moderate, and severe dementia indicated that both increasing and decreasing environmental stimuli were effective in reducing passivity (Colling, 2004). Providing extra stimulation in the form of enjoyable activities was noted as a successful intervention for passivity by 24% of the respondents, and other caregivers saw a need to limit the number of people and activities in the environment to prevent further withdrawal. Finding the right level and kind of environmental stimulation that captures the unique interests and needs of each person is key to reducing passivity.

ROLE OF PERSONALITY

In an integrated review of the literature, Holland (1999) concluded that interests are an expression of personality in work and recreational activities. The theory for our method is derived from this literature and has been reported previously (Kolanowski, Buettner, Costa, & Litaker, 2001). In this section, we describe the further development of our method that is based on an in-depth assessment of residents' premorbid personality.

On the basis of years of research, personality psychologists have endorsed the taxonomy of personality traits known as the Five-Factor Model (FFM) (Digman, 1990). The model consists of five major personality traits: neuroticism, extraversion, openness, agreeableness, and conscientiousness (Costa & Mc-Crae, 1992). The traits of extraversion and openness comprise an individual's style of interest and are domains associated with leisure interests (Piedmont, 1998). Extraversion is a personality domain that reflects the amount of social stimulation preferred by the individual (McCrae & Costa, 1989). Extraversion includes the facets of warmth, gregariousness, assertiveness, activity, excitement seeking, and positive emotions. People who are high on this trait tend to be outgoing and active, whereas those who are low on this trait are more reserved and prefer solitary pursuits. Openness is a personality domain that reflects a need for novelty and a curiosity about the world (McCrae, 1994). Openness includes the facets of fantasy, aesthetics, feelings, openness to action, openness to ideas, and

openness to values. People who are high on this trait enjoy the unconventional, whereas those who are low on this trait prefer the more familiar. Personality traits are not meant to rigidly categorize individuals; rather, they provide a general structure through which we gain knowledge about individuals. In our work, personality traits help us to understand individual differences and needs as they relate to activity prescription for nursing home residents who are passive.

Clinical observations have long suggested that personality change is a feature of dementia. Early studies indicate that individuals with dementia become significantly more passive and less spontaneous after onset of the disease (Rubin, Morris, & Berg, 1987). However, instruments designed to measure personality traits as conceptualized in the FFM were not used in these studies. The NEO-Personality Inventory (PI) measures the five major traits and the six facets that make up each trait, as defined in the FFM (Costa & McCrae, 1992). The NEO-PI has been used to assess personality stability after onset of dementia, and findings generally indicate an increase in neuroticism and decrease in extraversion and conscientiousness. However, on closer examination of the data, findings support the persistence of traits and facets that comprise style of interest.

For example, in one study, caregivers of 35 older adults with moderate cognitive impairments were asked to rate the older adults' current and premorbid personality using the NEO-PI (Siegler et al., 1991). Correlations were significant for 21 of 23 facets between premorbid and postmorbid ratings, indicating rank order stability, such that those who originally scored highest on a particular facet had high scores after the onset of dementia, although the group as a whole changed. There were no significant mean level changes to the trait of agreeableness, in any of the six openness facets, or in gregariousness (a facet of extraversion). The study by Siegler et al. (1991) was replicated by the researchers in a sample of 26 adults with moderate-stage Alzheimer's disease, and findings were similar: There were no significant mean level changes in five of the six facets of openness or two of the facets (gregariousness, excitement seeking) of extraversion (Siegler, Dawson, & Welsh, 1994).

Using a similar method, Chatterjee, Strauss, Smyth, and White-house (1992) reported rank order stability for the traits of extraversion ($r = 0.67$) and openness ($r = 0.77$) in their sample of 35 adults with moderate-stage Alzheimer's disease. There were no mean level changes for certain facets of extraversion (gregariousness) or openness (feelings, actions, values). In a study of 50 adults with Alzheimer's disease, researchers found significant and substantial rank order stability for extraversion ($r = 0.68$) and openness ($r = 0.66$) (Dawson, Welsh-Bohmer, & Siegler, 2000). Richman (1989) studied personality stability in 46 nursing home residents with mild cognitive impairments and found no significant change in mean level for any of the six facets of openness, or for four of the six facets of extraversion (warmth, gregariousness, excitement seeking, positive emotions), as rated by family caregivers.

Williams, Briggs, and Coleman (1995) asked family caregivers to rate personality change in 36 adults with dementia using the NEO-Five-Factor Inventory (FFI) (a shorter version of the NEO-PI that measures traits only) and found no significant mean level change in openness, but a significant decrease in extraversion. The authors felt the decrease in extraversion might be caused by the sedative effects of the psychoactive drugs taken by two thirds of their sample participants. In a more recent study, individuals with dementia were asked to rate their own personality at three points from early-stage dementia to 42 months from baseline using the NEO-FFI (Twigg, Burgener, & Popovich, 2007). Findings indicated that these individuals reported stability in all traits except extraversion. The pharmacological profile of these participants was not reported in this study, but it is likely that psychoactive drugs, which are frequently prescribed to individuals with dementia, could account for the change in extraversion as participants moved into the nursing home.

Taken together, these studies provide strong evidence that personality does not completely disintegrate during the course of dementia, particularly in the mild to moderate stages of the disease. The aspects of personality that demonstrate stability (both rank order and mean level) are those with relevance for style of interest and the prescription of activities for nursing home residents. The extraversion facet of gregariousness directly affects the context in which activities are delivered (i.e., group versus one-on-one), and the trait of openness affects the content of those activities (i.e., creative, oriented toward feelings and exploration versus the routine, more familiar, and conventional).

METHOD OF PRESCRIPTION

The recreational activities used in our work were originally developed and tested for clinical applicability with funding from the New York State Department of Health and are known as Simple Pleasures© (Buettner, 1999). Simple Pleasures are age-appropriate and stage-appropriate recreational items for nursing home residents with dementia. They are designed to reduce isolation, passivity, and agitation by enriching the environment with readily accessible, inexpensive, and attractive sensorimotor items.

In our initial work, we used a template for prescribing these activities: We matched activities to the resident's cognitive and physical function abilities and personality style of interest. We assessed cognitive abilities using the Mini-Mental State Examination (Folstein, Folstein, & McHugh, 1975) and physical function using the Psychogeriatric Dependency Rating Scale (Wilkinson & Graham-White, 1980). We assessed the resident's personality by asking a knowledgeable informant (usually an adult child or spouse) to rate the resident's premorbid personality using the 60-item NEO-FFI (Costa & Mc-Crae, 1992). We then examined the scores for extraversion and openness to obtain a general idea of the resident's long-standing style of interest. Individuals who score high on extraversion often like the company of others and may enjoy small group activities, whereas those with low scores on the trait may prefer one-on-one or independent activities. Individuals who score high on openness often enjoy artistic or creative activities, whereas those with low scores may prefer more conventional activities.

The overall trait score offers a global idea of how to prescribe activities, but it is the facet scores of each trait that give a more specific assessment and allow for a more specific prescription. For this reason, we now use the 240-item NEO-PI to assess premorbid personality in our research. Facet scores show individual differences within trait domains. We focus on those facet scores that are most prominent (low or high), because these facets reveal the individual's distinct pattern within each trait. We then select activities compatible with the individual's functional abilities that satisfy their needs, as expressed by these facets. For example, if a resident with verbal skills scored low on gregariousness, activity, and excitement seeking (facets of extraversion), but high on feelings (a facet of openness), we may prescribe the Feeling Cube activity in a one-on-one context. This activity involves use of a large die-like cube with a different feeling printed on each of its six sides (e.g., happy, sad, tired, peppy, angry, lonely). The resident and one other player take turns rolling the cube and then talk about the feeling that turns up with each roll of the cube. Residents don't often have the opportunity to talk about their feelings, and for someone who experiences emotions intensely, this activity allows them to express their inner feelings. This activity can also be implemented in a small-group context. The ultimate goal is active engagement in this activity for 20 minutes.

TRANSLATION TO PRACTICE

Tables 1 and 2 show several examples of activities that meet residents' needs expressed through facets of their personalities. Recreational therapists are an excellent resource for identifying

other activities that match these facets (Buettner, 2001). Activities tailored to both functional level and longstanding styles of interest have demonstrated efficacy in capturing interest and engaging residents because they meet individual needs (Kolanowski et al., 2005). The enhanced method described in this article has the potential to improve effect sizes in research studies and to advance resident-centered care.

Although researchers may have little problem collecting or interpreting personality data using standard instruments, not all nursing homes are prepared to implement such a method. However, federal nursing home surveyors are serious about individualized activities. The revised Centers for Medicare and Medicaid Services (CMS) activities F-tags #248 and #249 expect facilities to go beyond one-size-fits-all activities and focus on individual needs assessment. Understanding and complying with these challenging new regulations is not easy. One strategy for implementation is to fold the collection of personality data into the initial admission interview, when detailed life histories are routinely obtained from close family members. Guidelines have been developed for collecting these data (Reichman, Leonard, Mintz, Kaizer, & Lisner-Kerbel, 2004). In the interdisciplinary care planning session, activities that match the resident's style of interest can be selected by the recreational therapist or activity director in consultation with other members of the team.

The life history information should be shared with all staff and posted in the resident's room so staff gain a greater appreciation of the resident as an individual and are able to deliver care based on individual information (Cohen-Mansfield, Golander, & Arnheim, 2000). This information is critical to resident-centered care because the delivery of individualized activities is now the responsibility of all staff (Centers for Medicare & Medicaid Services). When staff are given information about residents' lives and preferences, they perceive the resident as more adaptable, setting goals, and having more skills than when this information is not known (Pietrukowicz & Johnson, 1991). Knowing a resident's style of interest has the potential to expand staff's repertoire of activity interventions, and beginning research indicates that life history information contributes to quality of care in nursing homes (Egan et al., 2007).

The prescription of activities requires the expertise of professional staff, but implementation is simple and activities can be performed by nonprofessional staff, family members, or volunteers (Buettner, 1999). The activities we describe have been used successfully in dozens of nursing homes, so they are clinically applicable (Watson, 2004). The template for prescription of individualized activities is generalizable, so this approach has practical relevance for nursing homes where methods of providing resident-centered care are greatly needed.

CONCLUSION

In recent years, the provision of activity services in the long-term care setting has changed dramatically, from a perspective of simply providing diversional activities that fill one's time in the nursing home environment to the delivery of resident-centered therapeutic interventions that meet the mental, physical, and psychosocial needs of the residents. Researchers are challenged to demonstrate the effectiveness of nonpharmacological interventions for meeting needs expressed through behavioral symptoms, such as passivity, in nursing home residents with dementia. The method we developed for identifying activity interests of residents not only meets regulatory requirements for resident-centered care, but also holds promise for improving quality of life in the nursing home by providing a well-designed method for application in research.

Acknowledgments

The authors acknowledge support for this work from the National Institute of Nursing Research grant number R01 NR008910 (A. Kolanowski, Principal Investigator).

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TABLE 1

OPENNESS FACETS

Facet	Score	Need expressed	Activity
Fantasy	High	Need interesting inner world	Guided imagery, relaxation tapes, creative writing, watercolor painting
	Low	Need to keep mind on task	Sewing, baking, building a birdhouse, practicing the piano
Aesthetics	High	Need for art and beauty	Arts and crafts, flower arranging, gourmet cooking, poetry reading
	Low	No sensitivity to art or beauty	Avoid arts and crafts, play dart game, toss activity, pricing game
Feelings	High	Need to express inner feelings	Feeling Cube, poetry, reminiscence, pet therapy
	Low	Feelings not considered important	Bowling, cognitive games (e.g., identify old movie stars), building projects or woodworking
Openness to action	High	Need for variety	Learn new dance steps, offer new games and activities on a regular basis
	Low	Need for familiarity	Keep to familiar activities, hanging laundry, table ball game
Openness to ideas	High	Need to explore new areas	Look inside purse or fishing box, scavenger hunt, brain teaser
	Low	No need for exploration	Avoid new or unconventional activities, use traditional home-type activities

TABLE 2

EXTRAVERSION FACETS

Facet	Score	Need Expressed	Activity
Gregariousness	High	Need for greater social stimulation	Use small-group activity with interaction, cooking club, parties, team activities
	Low	Need for less social stimulation	Use one-on-one or independent activity, listening to radio, solitary art or craft activity
Assertiveness	High	Need to lead and be dominant	Whack-a-mole kind of game, war card game, putting individual in charge of activity
	Low	Need to stay in background	Avoid putting in spotlight or in charge of activity
Activity	High	Need for physical movement	Exercise to music, dancing, tetherball
	Low	Need for more leisurely pace	Leisurely walk, table games, discussion
Excitement seeking	High	Need for stimulation, bright colors, sounds	Betting on horse races, wheelchair biking, Snoezelen[a], sensory stimulation with vivid colors and sounds, watching competitive sports games
	Low	No need for thrills	Use even-tempo games, reading books or listening to books on audiotape, listening to music

[a]Chitsey, Haight, and Jones (2002).