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Chapter I

Review of the Literature

Ageism, or the unfair treatment and discrimination of older persons, is embedded in the very core of our society and pervades almost every aspect of the lives of elders. A recent survey indicates that nearly all older adults are subjected to ageism, and many report repeated experiences of age-related prejudice (Palmore, 2001). Although generally less acknowledged, the negative effects of ubiquitous ageism are no less severe than other forms of discrimination (i.e., sexism), and range from reduced opportunities in employment and health care to outright abuse and neglect (Butler, 2006). Further, research indicates that in addition to overt forms of age-related discrimination, the more subtle ways in which people communicate with older adults can adversely impact their physical, mental, and emotional well-being (Ambady, Koo, Rosenthal, & Winograd, 2002).

A number of studies have indicated that exposure to aging stereotypes is associated with performance declines in older adults. Levy (1996) for instance, found that subliminally exposing older adults to negative terminology commonly associated with old age such as “senile” or “dependent” produced deficits in the older adults performance on a variety of memory tasks such as immediate, learned, delayed, and photo recall, and also lowered their self-appraisals of their memory ability, and worsened their perceptions of aging. Other studies conducted by Levy and colleagues have demonstrated that exposure to aging stereotypes is also associated with general reductions in preventive health behaviors (Levy & Myers, 2004), walking performance (Hausdorff, Levy, & Wei, 1999), evaluations of the quality of handwriting (judged to be shakier and relatively more deteriorated) (Levy, 2000), hearing performance (Levy, Slade, & Gill, 2006), increases in cardiovascular stress (Levy, Hausdorff, Henke, & Wei, 2000) and even declines in
the will to live in older adults (Levy, Ashman, & Dror, 2000). Even more striking are the results of a survival analysis that found after controlling for functional health, socioeconomic status, and other demographic variables, individuals who held negative self-perceptions of aging lived 7.5 years less on average than those with positive perceptions of aging (Levy, Slade, Kunkel, & Kasl, 2002).

While stereotypes of aging are transmitted through a variety of means (for a review, see Branch, Harris, & Palmore, 2005), many researchers underscore the role of everyday intergenerational interactions and communication in reinforcing stereotypical beliefs in older adults (Giles, Coupland, & Coupland, 1991; Hummert, 1994). Infantilization for instance, a term that refers to the tendency to treat older adults as if they were children, has been identified as an area of special concern (Arluke & Levin, 1984). Seniors are often ascribed the moods and personality of children, talked to as if children, rewarded for dependent behaviors, and even encouraged to pursue the activities of children (e.g., arts and crafts). Treating older adults in this manner is thought to create psychological distance between younger and older adults, and lowers the social status of older adults in a way that allows for treatment that would otherwise be considered unacceptable. Pillemer and Moore (1989) found that in a survey of 577 nursing home personnel, staff who reported treating residents like children were at the greatest risk for engaging in psychologically abusive behaviors such as yelling, insulting or swearing at residents. Further, infantilization has been proposed by others to lead older adults to believe they are no longer as capable or independent, and ultimately result in an amplified deterioration in their abilities (Avorn, 1982). The process behind these negative outcomes is straightforward; communicating with older adults as if they are feeble or have significant cognitive declines, even
when they are quite capable, creates a "self-fulfilling" prophecy that can lead older adults to adjust their self-view and behaviors to a dependent role (Arluke & Levin, 1984).

Stereotype threat is also theorized to account for noted performance declines among older adults. Stereotype threat is a situational phenomenon that asserts people will perform less well in situations where they run the risk of potentially conforming to a stereotype (Steele, Spencer, & Aronson, 2002 cited in O'Brien & Hummert, 2006). According to this theory, if older individuals are receiving communication signals that promote an expectation of incompetence, their fear of behaving in a manner consistent with that expectation may actually impair their performance and lead to behaviors that conform to the stereotype. To test this theory, Chasteen, Bhattacharyya, Horhota, Tam, and Hasher (2005) primed older adult participants with memory stereotypes using a lexical decision task and had them complete a memory test that was framed as either a “memorization task” or as an “impression formation task”. Participants also completed measures of evaluation apprehension, anxiety, and of perceived stereotype threat for memory. Results indicated that after being primed, participant performance was significantly better when tasks were framed as “impression formation” rather than “memory” and that overall performance tended to conform to the primed stereotypes. Additionally, the degree to which participants felt threatened about having stereotypes applied to them was predictive of their memory performance. This stereotype threat framework has been particularly useful in interpreting elderly individuals’ reduced performance in areas where there is considerable aging stereotypes such as memory and other cognitive tasks (O’Brien & Hummert, 2006).

Implicit self-stereotyping theory (Levy, 1996) also accounts for how exposure to stereotypes can impact older adults’ performance. According to implicit self-stereotyping theory, people subtly acquire information from their environments that can lead to both positive
and negative stereotypes about how they should behave. When an older adult encounters environmental cues that align with one of the stereotypes of aging, that stereotype becomes unconsciously activated and leads the older person to act out behaviors that are consistent with what is expected by the particular stereotype. Although stereotype threat and implicit self-stereotyping are similar theories, the important distinction is that stereotype threat can be considered more of a “hot” process that involves evaluation apprehension serving as mediator between exposure to negative stereotypes and performance declines, while self-stereotyping is seen as more of a “cold” or automatic process where unconscious positive or negative stereotype activation leads directly to stereotype conforming behaviors (O’Brien & Hummert, 2006). While the aforementioned theories have been useful in explaining how stereotypes may lead to declines in older adults, the Communication Predicament of Aging Model (CPA) proposed by Ryan, Giles, Bartolucci, and Henwood (1986), attempts to identify how the intergenerational communication of stereotypes can lead to negative outcomes for older people.

The Communication Predicament Model of Aging

According the CPA model, people adjust their communication styles when interacting with different individuals in order to facilitate better communication. In the case of encountering an older adult, an individual perceives cues signifying old age (e.g. mobility aids, physical appearance, nursing home context), and these cues trigger expectations and stereotypes held about older adults. A person may then modify his/her speech behavior in ways that correspond to the activated stereotypes. While the intention of the modified language may be to engage more successfully with an older individual, an overaccommodation can occur that actually inhibits communication and may be perceived as disrespectful or patronizing by older adults (Ryan, Hummert, & Boich, 1995).
This modified speech behavior has been identified in the literature as patronizing speech (Ryan et al., 1986), elderspeak (Kemper, 1994), or secondary baby talk as it has been found almost indistinguishable from baby talk (Caporael, 1981). Regardless of the terminology used (for simplicity, these terms will be used synonymously with elderspeak), this modified speech behavior consists of several characteristic psycholinguistic features including the use of childish terms (e.g. good girl), over inclusive pronoun modifications (e.g. it’s time for our bath), the use of terms of endearment in place of formal names (e.g. sweetie), tag questions which provide the illusion of choice while guiding to a listener to a particular response (e.g. You don’t really want to do that, do you?), a higher pitch and slow singsong tone of voice, as well as several other speech adjustments (for a review, see Ryan, et al., 1995).

Empirical support for the role of stereotypes in elderspeak comes from studies indicating that the actual characteristics of older adults such as cognitive capacity do not always seem to determine if an individual will be addressed in this derogatory manner. Caporael (1981) for instance, conducted a field study where nursing home staff rated residents on a variety of domains such as alertness, ability to feed themselves, and language use. The experimenters then coded tape recordings of interactions between the nurse’s aides and residents for the presence of elderspeak. Results of the study indicated that there was no relationship between the ratings of resident characteristics/abilities and the amount of elderspeak directed at the resident. Furthermore, in a study by Ashburn and Gordon (1981), it was demonstrated that nursing home staff modified their normal speech to become more repetitious, use more imperatives, and shorter sentences regardless of whether or not the older adults were alert and able to give feedback. In addition, Caporael, Lukaszewski, and Culbertson (1983) found that caregivers with the lowest expectations for older adults tended to rate speech samples of elderspeak, specifically
overaccommodated speech, as more nurturing and more useful in interactions with older adults. These studies provide substantiation for the idea that elderspeak is more a product of the attitudes and beliefs of staff members than the actual physical characteristics or functioning of the residents being addressed.

Gaining a better understanding of the role of stereotypes in speech behavior is important when considering that elderspeak is theorized to reduce opportunities for older adults to engage in meaningful communication and ultimately to prompt them to enact stereotyped behaviors consistent with aging stereotypes of older adults (Ryan et al., 1986). Further, as outlined by the CPA model, the resulting reduction in the quality of interactions with others is theorized to have a cumulative detrimental impact on older adult well-being. O'Connor and Rigby (1996) evaluated whether self-reports of how often older adults participants believed they experienced elderspeak was predictive of their self-esteem. Participants read a scenario depicting an interaction where elderspeak was utilized and answered questions about their perception of the depicted interaction, and how often they believed other people interacted with them in a similar manner. Results indicated a significant interaction, where negative perceptions of elderspeak and a higher reported frequency of elderspeak were predictive of lower self-esteem in older adults. Similarly, Edwards and Noller (1998) found that consistent with the CPA model, caregivers' patronizing communication, as rated by the care recipients, is associated with both lowered well-being and a high level of perceived conflict in the caregiver-receiver relationship. While there have not been any studies to address specifically if reducing elderspeak confers benefits to older adults, related research does indicate that training designed to improve the intergenerational communication of nursing home staff members also improves nursing home residents' well-being. McCallion, Toseland, Lacey, and Banks (1999) randomly assigned nursing assistants to
either receive a communication training aimed at communicating more effectively with
cognitively impaired residents or to a wait-list (control condition) where they did not receive the
training. Compared to the residents whose floor staff did not receive the training, those residents
whose staff participated in the intervention had significant reductions in depressive symptoms.
In addition, there were several indicators that the staff also benefited from the communication
training. Specifically, a significantly lower turnover rate was found among staff that completed
the training.

While O’Connor and Rigby (1996) focused primarily on elderspeak’s impact on
residents’ self-concept, and Edwards and Noller (1998) examined the relationship to well-being,
a number of investigations have examined whether using elderspeak confers communicative
benefits to older adults. Using a referential communication task, a task where two participants
take turns verbally guiding each other through a map, Kemper and Harden (1999) were able to
examine if scripts read to older adults containing varying degrees of the speech accommodations
inherent in elderspeak were associated with older adult performance on the tasks. Results of the
study indicated that only two speech accommodations, semantic elaborations and semantic
complexity were associated with reduced communication problems, and that these benefits were
minimal. Further, these components of elderspeak undermined older adults’ self-ratings
regarding their ability to communicate. Even though older adults were more successful on
communication tasks when they received semantic elaborations, they actually rated themselves
as making more communication errors than they did in neutral talk scenarios. Further,
characteristics of elderspeak such as reducing sentence length, slowing speech rate, or speaking
using a higher pitched voice does not confer benefits, and has actually impaired communication
with older adults (Kemper & Harden, 1999). While other researchers have found that some
aspects of elderspeak may be beneficial in improving performance in certain areas such as recall of information (McGuire, Morian, Codding, & Smeyer, 2000), it is important to weigh these benefits in regard to how older adults actually perceive this kind of talk, as elderspeak may adversely impact how older adults feel about their communication abilities, and their relationship with the speaker.

There is considerable complexity in how older adults regard elderspeak. According to Nelson’s (2005) review of the empirical literature, while many older adults view elderspeak as condescending and ageist, there are some who do actually perceive elderspeak as nurturing and supportive. Proctor, Morse, and Kohnsari (1996) argue that modified speech behavior like elderspeak, fall into what is called the “comfort talk register”, and serve a positive function because it verbally communicates a sense of caring. Older adults may recognize this positive function. It has been found that when asked to rate communicative scenarios, some older adults with lower functional abilities (Caporael et al., 1983) or a high need for succorance (O’Conner & Rigby, 1996) rate elderspeak scenarios more positively than those written in neutral talk. Similarly, Gould, Saum, and Belter (2002) found older adults attribute stronger emotional reactions to an instructional video presented in elderspeak than to the same video presented in neutral speech. Of particular interest is that the older adults’ emotional reactions to the video included both more positive and negative feelings. These conflicting emotions indicate the complexity in older adults’ reactions to elderspeak, as it is possible for older adults to hold both strong negative and strong positive subjective reactions, such as perceiving elderspeak as caring but at the same time finding it patronizing. Giles, Fox, and Smith (1993) also examined perceptions of elderspeak by asking older adults to read a transcript of a conversation where a younger individual engaged in elderspeak with an older adult. The older adult participants
provided information in regards to their personal experience of the speech used in the transcript. Results of the study indicated that overall, 58% of the older adult participants believed that in general they were addressed in a similar manner, 59% believed they had personally experienced the type of speech used in the scenario, 50% reported being irritated by that type of speech, 17% felt angered by it, and 15% reported it made them feel inferior, while less than 5% of the participants endorsed feeling respected and comforted when addressed by elderspeak.

In addition, older adults’ perceptions of elderspeak vary based on the setting in which they reside. While O’Conner and Rigby (1996) found that older adults surveyed in both community and nursing home settings rate elderspeak scenarios as disrespectful overall, the older adults living in nursing homes tended to be more accepting of it than those living in the community, possibly due to habitual exposure. While this research suggests that the majority of older adults react negatively and find the practice of elderspeak unwelcome, the variations in older adult’s perceptions of elderspeak speech behavior point toward the need to include resident outcomes when assessing communication training. This is particularly relevant when considering that perceptions of elderspeak may mediate outcomes related to self-worth and self-esteem (O’Connor & Rigby, 1996).

In addition to older adults’ negative perceptions of elderspeak, research has also indicated that the users of elderspeak may be subject to denigration by residents. Gould and Dixon (1997) found that older women reacted negatively to speakers using elderspeak in video vignettes. Also utilizing vignettes, La Tourette and Meeks (2001) found that nurses who use elderspeak were rated less favorably by both nursing home residents as well as older adults residing in their homes, compared to nurses who do not use elderspeak. Further, most older adults with higher cognitive and social functioning tend to see elderspeak as humiliating and patronizing (Caporael
Elderspeak and communication in elderspeak conditions less satisfying (Ryan, Bourhis, & Knops, 1991).

A recent case study by Cunningham and Williams (2007) is telling of how older adults may respond to staff using elderspeak, and provides preliminary support for the idea that elderspeak may be related to older adults’ resistive behaviors to care. In this study, four recordings were taken of staff members interacting with a 78-year-old woman with probable Alzheimer’s disease. Recordings were coded for the presence of elderspeak and resistiveness to care behaviors such as pulling away from the staff, hitting or kicking, or screaming. Results of the study indicated that when staff used more elderspeak, the resident became more resistive.

_Elderspeak Intervention_

An intervention to enhance nursing home communication and reduce elderspeak has previously been evaluated in nursing home settings. In two separate studies, Williams et al. (2003; 2005) conducted an elderspeak intervention developed according to the Communication Predicament Model of Aging (Ryan et al., 1986). Nursing home staff completed three one-hour sessions with a goal aimed at improving their interpersonal communication abilities, while reducing inappropriate or ineffective speech accommodations. The main focus of the program was described by the researchers to be directed toward educating staff members about the communication barriers faced by nursing home residents, instructing nursing home staff on the negative impacts of elderspeak for residents, reducing the ineffective speech accommodations used by the staff members, and introducing the staff members to more positive ways of communicating with residents. A particular objective of the intervention was to sensitize the staff members to the characteristics of elderspeak such as slowed rate of speaking, shortened sentence length, baby talk, and use of diminutives and overinclusive pronouns. To accomplish
this aim, the intervention included recordings of actual videotaped staff-resident interactions, as well as scripted interactions preformed by actors to provide a visual for effective and ineffective nursing home communication. The intervention also utilized short lecture and small group practice where the participants were able to role-play new communication skills and critique the video illustrations. Individual participants were also provided with a pre-recorded sample of their own interactions with residents to aid them with future self-monitoring. The first session included discussion of the importance of communication, effective and ineffective communication strategies, and barriers to communication for residents. The second session focused more specifically on nursing home communication barriers, the concepts of task-focused and ignoring talk, as well as elderspeak. The final session involved practicing positive communication strategies such as addressing residents by their name when communicating with them and performing role-plays without elderspeak.

In order to evaluate the effectiveness of the elderspeak intervention, Williams et al. (2003; 2005) used a pre- and post-test tool to access knowledge gained by the staff after the intervention. The researchers had the staff participants rate a video of a nursing home interaction on the level of appropriateness and effectiveness before and after the training. Staff members also completed a survey assessing the value of the training program. To ensure that the intervention led to reductions in the staff’s use of elderspeak characteristics, the researchers took audio recordings of the staff members’ interactions with residents a week before and in the week following the intervention. The results of these studies are very encouraging as the researchers found a significant reduction in staff members’ use of the characteristics of elderspeak including terms of endearment, inappropriate collective pronouns, and shortened sentence length at post intervention. In addition, in both studies, the immediate post-intervention conversations between
the staff and the residents were rated by the experimenters as less controlling, and more respectful than the pre-intervention recordings. Further, Williams, et al. (2005) found that after a two-month follow-up, staff members continued to use reduced amounts of elderspeak. While both of these studies demonstrate that it is possible through an educational intervention to successfully reduce the use of staff elderspeak, neither study addressed what impact their intervention had on the nursing home residents.

The need for good communication training has been identified as one of the most important elements of care by nurses (McGrath, Yates, Clinton, & Hart, 1999). Interestingly, the nursing home staff members that provide the most direct care to residents, CNAs, are afforded the least amount of training (Winchester, 2003). As Winchester (2003) indicates, shrinking Medicaid reimbursements have forced nursing homes to limit the amount of education a CNA receives. In addition, training has been largely restricted to federally mandated topics such as infection control, and resident rights, while trainings on effective communication have largely been neglected. While it has been empirically demonstrated that communication interventions such as those conducted by McCallion et al. (1999) and Williams et al. (2005) were very effective in improving nursing home communication, financial constraints and time demands placed on nursing homes challenge the feasibility of such in-services. For instance, the Nursing Assistant Communication Skills program from McCallion et al. (1999) is demanding time-wise. Staff member participants complete five 45-minute group training sessions in addition to four 30 minute individual trainings. While the Williams et al. (2005) intervention demanded less time from the staff member participants, their intervention still required three one-hour group sessions, and one on one feedback sessions where staff participants were able to listen to personalized recordings of their own speech. While the potential benefits of such trainings likely
outweigh the time commitment, shorter interventions may be needed to meet the practical demands of nursing homes. This is particularly salient when considering that often only 1 to 2 hours are allotted for communication skills training in CNA training programs, and nursing homes limit time allowed for each in-service (Winchester, 2003).

The present study has several objectives. The primary objective is to evaluate whether a shortened adaptation of the Williams et al. (2003) elderspeak intervention relates to resident outcomes in terms of improved communication satisfaction, self-concept, and well-being. As McGilton, Irwin-Robinson, Boscart, and Spanjevic (2006) indicate, an important limitation of previous research on improving nursing home staff communication skills is not including the resident perspective when evaluating interventions. Further, a second objective is to develop an intervention that demands less staff time yet is effective in increasing awareness of elderspeak, and is effective in prompting trained nursing home staff to reduce their use of elderspeak. As Williams (2001) indicates, one of the relative weaknesses of the original intervention was the length of the sessions and cited that in order to improve the intervention for future use, the intervention could be modified in an effort to cut down session length.
Chapter II
Rationale and Hypotheses

Intervention effectiveness

Seeking to reduce staff members’ use of elderspeak has considerable merit. As previously stated, many of the psycholinguistic characteristics of elderspeak do little to improve the speech comprehension of older adults (Kemper & Harden, 1999). In particular, altering speech to have a higher pitch and prosody represents an identifying feature of elderspeak that has been found in the literature to be of little communicative benefit for older adults and actually lowers an older adult’s confidence in his/her ability to communicate (Kemper & Harden, 1999). Increasing pitch and prosody is also counterproductive when considering that the most common form of hearing loss affecting older adults actually reduces sensitivity to higher-frequency tones (Van-Rooij & Plomp, 1990). In addition, as Lanceley (1985) argues, elderspeak features may serve a controlling rather than caring or speech comprehension function, and signal the power dynamic between nurses and older adults that exists in institutionalized settings. Inappropriate pronoun modifications such as using “we” may ignore the resident as an individual, and “tagging” may serve to enforce compliance by masking a declarative as a question, providing the illusion of choice to residents while directing them to a particular behavior (Lanceley, 1985). While it is true that some elements of elderspeak may be beneficial to older adults, those elements are accompanied by features that do not improve performance and imply that older adults are incompetent (Torrey, Fussell, & Kiesler, 2005). Further, as suggested by the CPA model (Ryan, et al., 1995), addressing older adults in elderspeak may reinforce negative stereotypes of aging and ultimately lead to a deterioration of their abilities and well-being. While the aforementioned research highlights the importance of enhancing intergeneration
communication in nursing homes, possibly the best argument for reducing the use of elderspeak rests in the notion that many older adults find it patronizing and disrespectful (Ryan, et al., 1995).

Consistent with Williams et al. (2003), this study seeks to evaluate whether a brief communication training can reduce staff member use of the negative features of elderspeak. Previous work has demonstrated that staff members who participate in an elderspeak intervention reduce their use of elderspeak and that these reductions continue at a two month assessment (Williams et al., 2005).

**Hypothesis I:** It is hypothesized that through a brief intervention designed to raise awareness of elderspeak, nursing home staff in a unit that has undergone elderspeak training will reduce their use of elderspeak at both post intervention and when compared to staff not receiving the training. Pre- and post-intervention comparisons of the proportion of observed interactions that contain elderspeak (identified by trained observers using the Williams, 2001 Communication Evaluation Tool) will indicate a significantly smaller proportion of characteristics of elderspeak (pronoun modifications, shortened sentences, terms of endearment, tag questions, baby talk) at post intervention.

Knowledge, attitude, and the intention to change behavior are variables that have been identified within the literature as important mediators for behavior change in communication trainings (Francke, Garssen, & Huijer Abu-Saad, 1995). Knowledge gain in particular is commonly assessed in intervention research and is thought to be an important determinant of nurses’ behavioral changes in continuing education (Warmuth, 1987). As Kiener and Hentschel (1989) found, knowledge gain is the most often cited factor for facilitating behavior change in nursing staff after they have received an in-service training.
Hypothesis 2: Using the Communication Evaluation tool (Williams, 2001), pre- and post-test ratings of elderspeak in a staff-resident communication vignette will indicate a significant increase in staff knowledge and ability to identify elderspeak at post intervention.

In addition, as Francke et al. (1995) reviews, attitude towards a topic and the associated behaviors of the topic can influence actual behavior. According to reasoned action theory (Fishbein & Ajzen, 1975), the intention to demonstrate a particular behavior is closely related to actual behavior. That is, the greater the intent, the more likely it is a person will actually change their communication behaviors. The predictive utility of this relationship is strong, and has been established in a number of studies (Sheppard, Hartwick, & Warshaw, 1988).

Hypothesis 3: Comparisons of the sample mean to the hypothesized population mean on attitude and behavioral commitment to the training will indicate a significant difference in the direction of positive behavioral commitment and positive attitude towards the training in the sample (as measured by the Affective Learning Scale).

Resident outcomes

While prompting staff to change their communicative style has been the primary focus of past interventions, comparatively little attention has been focused on the residents' responses to communication interventions. As initially stated, the CPA model posits that elderspeak reduces opportunities for older adults to engage in meaningful communication while promoting the notion that older adults are incompetent and dependent. The resulting reduction in the quality of interactions, as well as the conveyance of negative stereotypes of aging, may lead older adults to experience decreased self-esteem and well-being as a result of their exposure (Ryan, et al., 1995). To more fully evaluate the merits of an elderspeak intervention it is important to understand what impact such training has on the experiences of the nursing home residents.
It is predicted that there will be a significant effect of the intervention on resident outcome. Following this,

**Hypothesis 4:** It is theorized that improving the communication milieu of the nursing home by reducing the presence of elderspeak will have positive benefits for the well-being of older adult residents. It is hypothesized that comparisons of older adult well-being (measured by the mental health inventory-5) at the pre-intervention stage, in the week following the intervention, and at a two month follow up will indicate a significant increase in resident well-being at both post intervention assessments. Further, it is hypothesized that residents residing in the unit that received elderspeak training will have significantly higher well-being at both post intervention assessments than the unit that did not receive the training.

**Hypothesis 5:** Further, it is theorized that reducing elderspeak will confer benefits to the self-concept of the nursing home residents. Comparisons of pre- and post-intervention resident self-esteem ratings (measured by the Rosenberg Self-esteem scale) are hypothesized to indicate a significant increase in resident self-esteem at both post intervention assessments. It is also hypothesized that the residents residing in the unit receiving elderspeak training will have significantly higher self-esteem at both post intervention assessments when compared to residents residing in a unit where the staff did not receive the training.

**Hypothesis 6:** Because the CPA model posits that elderspeak limits opportunities for older adults to engage in meaningful communication, it follows that enhancing nursing home communication by reducing elderspeak may improve how residents generally feel during interactions with the nursing home staff. It is hypothesized that comparisons of resident communication satisfaction (measured by the Feelings of Understanding/Misunderstanding Scale) will indicate a significant increase in feelings of understanding and a significant decrease
in feelings of misunderstanding at both post intervention assessments. In addition, residents in a unit that received the training will have significantly higher communication satisfaction at both post intervention assessments when compared to residents residing in a unit where the staff did not receive the training.

*Exploratory Hypothesis*

As Cahn (1990) describes, the feeling of being understood refers to an individual’s feelings of success when trying to communicate. While perceived understanding has been found to correlate strongly with communication satisfaction, marital happiness, and has been found to influence the perception of interpersonal trust and relationship satisfaction (Cahn, 1990), the relationship of perceived understanding to self-esteem and well-being has not previously been examined in the research.

*Hypothesis 7:* Positive correlations are expected between residents’ communication satisfaction and resident self-esteem and well-being.
Chapter III

Method

Overview

The objective of the study is to evaluate whether a 90-minute in-service designed to increase staff awareness of elderspeak, and improve the communication satisfaction, self-concept, and well-being of nursing home residents is effective. A quasi-experimental pre- and post-design will be used to assess communication change among the staff members. Observed staff/resident interactions occurring in public areas of the unit receiving the in-service training will be coded for the presence of elderspeak at pre- and post-intervention. A two-group comparison design will be used to evaluate the effects of the staff training on resident outcomes. Randomization will occur at the ward level. Two assisted living units of a long term care facility will be selected and assigned to either the treatment (unit staff receive elderspeak training) or control condition (no staff training). Residents in both groups will fill out demographic and mental status information as well as baseline self-report measures of self-esteem, well-being, and communication satisfaction and complete the same measures again within two weeks and at a two month follow-up to assess for change.

Participants

Nursing home staff. Nursing home staff from a local facility will be asked to participate in the in-service training on a voluntary basis. It will be explained from the onset that they will be participating in an educational in-service and research project on nursing home communication. The number of staff working in the treatment unit who elect either to participate or not participate will be recorded. In compensation for their consent to participate (see appendix A), staff will be given light refreshments during the training and 10 dollars for their
participation. The recruitment of staff will not be limited to, but will emphasize nursing assistants, a group identified as having the most direct contact with residents.

Residents. All nursing home residents in the selected treatment and control units of the nursing home will be eligible to participate. The two assisted living units were chosen on the basis of similarities in level of care, resident demographics, and resident population. Older adults qualify to be a resident in the units on the basis of needing assistance with activities of daily living or medical care and being above the age of 65. After an in-person briefing on the nature of the study and going over informed consent with each resident, residents will be given a short quiz to ensure they understand the cost and benefits of participation and that they are free to withdrawal at anytime without penalty (see appendix B). In compensation for their participation, residents will receive two dollars each time they complete the questionnaires.

Intervention

The elderspeak intervention will be a shortened version of the intervention originally developed by Williams et al. (2003). To reduce class size and scheduling conflicts, multiple training sessions will be offered to the staff. The intervention will occur in two 45-minute sessions. The objective of the intervention will be to assist the nursing home staff in becoming aware of elderspeak, identify the characteristic features of elderspeak, and to foster an understanding of how patronizing communication not only can impair communication, but also may negatively affect the well-being of older adults. The content of the intervention will include both theory and practical exercises as this combination of didactic strategies has been indicated to foster more positive behavior change in nurses beyond theory or practical approaches alone (Kruijever, Kerkstra, Francke, Bensing, & Weil, 2000). The intervention will focus on the underlying CPA model and the educational and practical exercises will include outlining the
characteristics of elderspeak, distinguishing elderspeak from neutral speech, and viewing and critiquing video vignettes individually and as a group. Short video segments will allow staff participants to have an opportunity to identify features of elderspeak and affirming communication in both videotaped vignettes and in actual interactions (for an outline of the intervention see appendix C and D, for sample handouts see appendixes E-G, and for intervention slides see Appendix H). Pilot testing of the educational program will be completed by undergraduate students enrolled in a psychology of aging course. Student participants will attend the training as part of their regular course curriculum and complete the measures of applied knowledge, attitude, and the feedback form in order to evaluate the length of the intervention, the feasibility of the exercises, and the usefulness of the content. Feedback will also be solicited through group discussion.

Program Evaluation

Applied Knowledge: Knowledge gained from the intervention will be measured using the same procedure outlined in Williams (2001). At the start of the program, staff participants will observe a short videotaped nursing home interaction and then rate the video using the Communication Evaluation Tool developed originally by Williams (2001) (see appendix I). The original tool will be modified to consist of two items asking staff to describe the effectiveness and appropriateness of the interaction on a five-point scale, and eight items asking them to identify the presence or absence of specific communication behaviors such as “Did the aide use a kind of baby talk?” At the end of the program, staff will again view and rate the videotaped interaction using the same form. Pre- and post-test ratings will be compared to assess the effectiveness of intervention in increasing staff knowledge of elderspeak.
Attitude and Intention to Change Behavior: The Affective Learning Scale (ALS; Andersen, 1979). The ALS is a 20-item measure asking participants to rate their attitudes towards the intervention content, subject matter, recommendations of the course, and the instructor (see appendix J). This scale attempts to capture both attitudes towards the training, and behavioral commitment by having participants rate statements such as “Behaviors recommended in the course” on a 7-point scale along a bipolar continuum with endpoints such as Valuable or Worthless. Scores on the ALS range from 20 to 140, where a higher number indicates greater behavioral commitment and positive attitude toward the training. The ALS has been found to have high reliability, with alpha (split-half) reliability estimates as high as .98 (Rubin, Palmgreen, & Sypher, 2004). In addition, staff will complete a program evaluation sheet and have an opportunity to provide any additional comments on the back of the form (see appendix K).

Behavioral Changes: Concealed observation will be used to evaluate if the intervention was successful in reducing staff member use of elderspeak. Before staff members receive the training, four trained research assistants who are blind to pre- and post-test conditions will sit in the common areas of the treatment and control units and will each observe 15 interactions between the nursing home staff and residents, for a total of 30 observations for the treatment group and 30 observations for the control group staff. After staff members complete the elderspeak training, research assistants will again observe and code staff resident interactions in the treatment and control groups. Post-intervention observations will be taken within two weeks of completion of the training, and also at a two month period. Each observed interaction will be rated on a seven item questionnaire based on the Communication Evaluation Tool (Williams, 2001). Research assistants will indicate whether they observed specific communication
behaviors in the interactions including baby talk, shortened sentences, diminutives, over
inclusive pronouns, and tag questions (see appendix L).

Resident Measures

*Communication Satisfaction.* Feelings of Understanding/Misunderstanding Scale.

The FUM is a 16-item measure based on five points ranging from *Never* to *Always* representing the degree to which each adjective reflects how a person felt after attempting to communicate with a specific target (see appendix M). The FUM includes eight adjectives to measure the perception of being understood (PBU) such as “Satisfaction” and “Importance” and eight adjectives to measure feelings of misunderstanding (PBM) such as “Annoyance” or “Dissatisfaction”. A single dissatisfaction item will be changed from “uninterested” to “talked down to” in order to be more relevant to the current study. Scoring of the FUM will be achieved by subtracting the PBM score from the PBU to obtain a composite score with a range from –32 to +32, where higher scores indicate a greater degree of perceived understanding. Evidence for the validity of the measure comes from studies finding perceived understanding is significantly related to perceived empathy, relationship satisfaction, serves as a predictor in instructor evaluations, and correlates highly with communication satisfaction (0.75) (Cahn, 1990). Cahn and Shulman (1984) reported a test-retest reliability of .90 and an alpha of .89.

*Self-esteem.* The Rosenberg Self-Esteem Scale (Rosenberg, 1989). This 10-item measure asks participants to indicate their degree of agreement on a 4-point scale regarding their self-esteem “I take a positive attitude toward myself” where higher scores indicate higher self-esteem. This instrument has been used widely in the literature and has a high reliability, and
correlates with a number of self-esteem related constructs. The measure will be modified to measure state self-esteem (see appendix N).

**Well-being.** Mental Health Inventory – 5 (MHI-5; Veit & Ware, 1983). The MHI-5 is a 5-item measure of psychological well-being that requires participants to respond to questions regarding the frequency of their experiences such as “During the past month, how much of the time were you a happy person?” on a 6-point scale. Item scoring will be reversed so that it ranges from 1 (*None of the time*) to 6 (*all of the time*) (see appendix O). The scale has a minimum score of 5 and a maximum score of 30, with higher scores indicating the experience of psychological well-being and the absence of psychological distress. This scale was developed from a longer version (the MHI-38). The MHI-5 and the MHI-38 correlate highly (0.95) and has well-established reliability and validity (Berwick et al., 1991).

**Baseline Mental Status.** Six-Item Screener (SIS, Callahan, Unverzagt, Hui, Perkins, & Hendrie, 2002). The SIS is a brief six-item screener used to identify individuals with cognitive impairment. It is composed of three orientation items (year, month, and day) and a three-item word recall task (see appendix P). Scores range from zero to six where lower scores are suggestive of greater cognitive impairment. The SIS is brief, easy to administer, and has been validated in a variety of older adult populations including community-dwelling African Americans, patients referred to an Alzheimer’s treatment center (Callahan et al., 2002) and with older adult emergency department patients (Wilber, Lofgren, Mager, Blanda, & Gerson, 2005; Carpenter, Krall, & Tibrewala, 2007). The original authors report a sensitivity of 95% and specificity of 87% (Callahan et al., 2002).
Procedure

Pre-intervention stage. Informed consent will be obtained from participating staff as well as all participating nursing home residents. After receiving an explanation of the study and providing consent, residents in both the intervention and control units will complete a demographics sheet (see appendix Q) asking them their age and gender, and a short mental status exam along with baseline outcome measures of communication satisfaction, self-esteem, and well-being. All questionnaires will be read to the participating residents. Trained research assistants, blind to the study hypotheses, will conclude pre-intervention field observations prior to the start of the in-service training.

Post-intervention stage. After completion of the in-service training, nursing home residents will be orally administered the measures of self-esteem, well-being, and communication satisfaction within two weeks of the conclusion of the training, and again at a two month follow-up to assess for change over time. Research assistants will begin the first post-intervention field observation immediately following the training, and perform field observations again at the two month follow-up. After completion of data collection, all participants will be fully debriefed to the research hypotheses.
Chapter IV
Proposed Analysis

Baseline Equivalence Test

Demographic and baseline variables of perceived understanding, self-esteem, well-being, and mental status will be compared between the treatment and control condition using an independent samples *t-test* to examine if there are any differences between participants in the two conditions at the pre-intervention stage.

Hypothesis Testing

To test whether there was a significant difference between the proportion of each of the elderspeak characteristics observed in interactions after completion of the training, with respect to the proportion interactions containing each characteristic before the training (hypothesis one), two-sample chi-square tests will be performed. Two-sample chi-square tests will also be used to evaluate whether the treatment and control group staff differed in their use of elderspeak at pre- and post-intervention stages.

In order to examine if staff members significantly increased their awareness of elderspeak after receiving the training (hypothesis two), a paired sample *t*-test will be used to compare staff member’s total pre- and post-training scores on the Communication Evaluation Tool. Comparisons of pre- and post-training responses will also be examined at the item level. McNemar proportions tests will be conducted on each of the dichotomous pre- and post-test responses of the Communication Evaluation Tool. Paired sample *t*-tests will be used to compare the pre- and post-interval data from the “effective” and “appropriate” items of the tool.

To determine if nursing home staff trained in the intervention have a positive commitment and attitude toward the training (hypothesis three), a one-sample *t*-test will be used...
to compare the sample mean to the midpoint score (80) on the ALS. A test value of 80 will be chosen because a score greater than 80 implies a positive commitment and attitude, a value below 80 implies a negative commitment and attitude, and a score of 80 implies neither a negative nor positive view.

To determine whether there will be an impact of the elderspeak training on resident outcomes specifically, well-being (hypothesis four), self-esteem (hypothesis five) and perceived understanding (hypothesis six), a 2x3 MANOVA with three dependent variables will be conducted. The first factor will be the "condition" (training or control) and the second factor "time" (pre-training, post-training assessment 1, post-training assessment 2) with the dependent variables being the total scores of the self-esteem, perceived understanding, and well-being scales. Provided the results of the MANOVA indicate significant multivariate main effects for control and time on the resident outcomes, univariate main effects will be examined using one-way ANOVAs as follow-up tests for each of the dependent variables. Follow-up tests will be corrected using the Bonferroni method with the p-value adjusted to .017 (.05/3).

To examine the prediction that perceived understanding will correlate positively with resident self-esteem and well-being (hypothesis seven), correlation coefficients will be computed between scores on the FUM and Rosenberg Self-esteem Scale, and between the PUM and the MHI-5 using Pearson product-moment correlation coefficients (r).
References


Appendix A

Staff Informed Consent Document

You are being given the opportunity to volunteer to participate in a project conducted through Xavier University. The following information is provided so that you can decide whether you wish to participate in the research study.

We are interested in studying the communication between staff and residents in nursing homes. We are asking you to attend a communication training provided in your facility and to complete a set of brief questionnaires about the training. The training program will occur in two 45-minute sessions arranged at your facility. You will receive $10 in compensation for your time. In addition, the findings of the study may contribute to increased understanding of human interactions and improved communication in the future. Information from questionnaires will be examined at the aggregate level, not at the individual level so no data will be identified by name. Only the researchers from Xavier University will have access to the questionnaires, and the information collected will only be used for research purposes. Refusal to participate in this study will have no effect on any future services you may be entitled to from Xavier University or Otterbein Nursing Home. Although we do not anticipate any risks to participation, if you experience any source of discomfort you are free to withdraw from the study at any time without penalty.

CONSENT FORM

I understand that Xavier University is requesting my consent to participate in a study on communication between nursing home staff and residents. I give my consent to participate in the project. I understand that I will receive $10 for participating in the training and that the findings from the project may contribute to improving communication in the future.

I understand my name will not be associated with surveys at any time. I understand that I am under no obligation to consent and may withdraw my consent at any time without penalty. I understand that I am free to ask questions about that study at any time by contacting the researchers listed below.

We appreciate your cooperation very much and thank you for your willingness to participate.

If you have any questions at any time during the study, you may contact the primary investigator, Lonnie Bradford, M.A, at 513-271-0306 or Dr. Christian End (Xavier Faculty Member), 513 745-3249 or end@xavier.edu. Questions about your rights as a research participant should be directed to the Chair or the Chair of Xavier University's Institutional Review Board at (513) 745-2870.

By keeping this form I acknowledge that I have been given information about this research study and its risks and benefits and have had the opportunity to ask questions and to have my questions answered to my satisfaction. I freely give my consent to participate in this research project.
Appendix B

Resident Informed Consent Document

You are being given the opportunity to volunteer to participate in a project conducted through Xavier University. The following information is provided so that you can decide whether you wish to participate in the research study.

We are interested in studying communication between residents and staff in long-term care facilities. We are requesting your permission to be included in the research project. Over a period of 4 months, we are asking you to fill out three brief surveys taking approximately 10 minutes to complete. In compensation for your time, you will receive two dollars each time you complete the surveys for a total of six dollars. Further, our findings may contribute to better understanding of communication in the future. Risks associated with your participation are minimal. Your name will not be associated with the surveys. Refusal to participate in this study will have no effect on any future services you may be entitled to from Xavier University or Otterbein Nursing Home. You are free to withdraw from the study at any time without penalty.

CONSENT FORM

I understand that Xavier University is requesting my consent to participate in a study of communication between nursing home residents and staff. I give my consent to participate in the project by filling out questionnaires at Otterbein Nursing Home. I understand that I will receive two dollars compensation for participation each time I complete the surveys and that findings may contribute to improving communication in the future.

I understand my name will not be associated with the surveys at any time. I understand that I am under no obligation to consent to participation and may withdrawal my consent at any time without penalty. I understand that I am free to ask questions about that study at any time by contacting the researchers listed below.

We appreciate your cooperation very much and thank you for you willingness to participate.

If you have any questions at any time during the study, you may contact the primary investigator, Lonnie Bradford, M.A, at 513-271-0306 or Dr. Christian End (Xavier Faculty Member), 513 745-3249 or end@xavier.edu. Questions about your rights as a research participant should be directed to the Chair or the Chair of Xavier University’s Institutional Review Board at (513) 745-2870.

By keeping this form I acknowledge that I have been given information about this research study and its risks and benefits and have had the opportunity to ask questions and to have my questions answered to my satisfaction. I freely give my consent to participate in this research project.
Guardian Informed Consent Document

Identification of Investigators & Purpose of Study
The resident under your care is being asked to participate in a research study conducted at Otterbein Retirement Living Community by Lonnie S. Bradford and Dr. Christian End from Xavier University. The purpose of this study is to examine the communication between residents and staff in long-term care facilities.

Research Procedures
If you do not object, the resident in your care will be asked if he or she would like to participate in this research study. If the resident agrees, he or she will be asked to complete three brief surveys over at three different points over a period of 4 months. The questionnaires are about the residents' communication satisfaction with the staff and general well-being. The surveys will take approximately 10-20 minutes to fill out at each time period, for a total time commitment of approximately 45 minutes to 1 hour.

Risks/Benefits
Residents will receive two dollars each time they complete the surveys for a total of six dollars. We do not foresee that participation in this study will pose a risk to participants.

Confidentiality
Residents will not put their names on the surveys. A code number will be used instead. Although there will be a master list of names and codes numbers to allow us to track responses over time, this will be destroyed after all data have been collected. Further, when we communicate the results of our study, we will present the responses of residents as a group, and no individual residents will be identified. All data will be stored in a secure location accessible only to the researcher.

Participation & Withdrawal
Your agreement and resident participation are entirely voluntary; both you and the resident are free to choose not to participate. Should the resident choose to participate, he/she can withdraw at any time without consequences of any kind. Refusal to participate in this study will have no effect on any future services residents may be entitled to from Xavier University or Otterbein Nursing Home. If you would like to exclude the resident in your care from participation please indicate this to us using the contact information below.

Questions about the Study
If you have questions or concerns about this study or would like for the resident in your care to be excluded from participation please feel free to contact us: Primary investigator, Lonnie Bradford, M.A, at 513-612-0876 or bradfordl@xu.edu or Dr. Christian End (Xavier Faculty Member), 513 745-3249 or end@xavier.edu.

Questions about one's rights as a research participant should be directed to the Chair of Xavier University's Institutional Review Board at (513) 745-2870.

There is no need to respond to this form if you wish to give consent for the resident in your care to participate in this research project if he/she chooses to do so. If you would like to exclude the resident in your care from participation simply contact us using any of the contact information above.
Resident Informed Consent Quiz

You are being asked to participate in an ongoing research project conducted through Xavier University and Otterbein Nursing home. Please answer the following questions about the previously administered informed consent before you begin.

1. You may choose to quit the study at any time without penalty.
   True or False

2. You will be paid $2 each time you complete the surveys.
   True or False

3. Your responses on the surveys will not be shared with anyone.
   True or False

4. Your responses will only be used for research purposes.
   True or False

5. There are no risks to participating in the study.
   True or False
Appendix C

Intervention Outline: Modified from Williams et al. (2003)

Objectives

- Identify the characteristics of elderspeak.
- Identify effective and ineffective communication in a series of video staff-resident interactions.
- Practice strategies.

Content

- Review research that demonstrates how communication can influence resident independence and quality of life as well as staff job satisfaction.
- Review characteristics of effective versus ineffective/patronizing communication.
- Identify the features of elderspeak and how patronizing communication can negatively impact older adults.
- Identify features of elderspeak in videotaped interactions.
- Critique videotapes of staff-resident interactions, rewriting the script and role-playing without elderspeak.
Appendix D

Proposed Schedule

CONFRONTING ELDERSPEAK

Session I

0:00 - 0:10 Introduction to the project and informed consent
0:15 - 0:25 Communication and “What is Elderspeak?”
0:25 - 0:35 Identifying Components of Elderspeak
0:35 - 0:50 Video Examples

Session II

0:45 - 0:50 Short Discussions
0:50 - 0:55 Alternatives to Elderspeak
0:55 - 1:15 Correcting Scripts
1:00 - 1:30 Role Plays
1:30 - 1:40 Completion of Surveys

Discussion
Appendix E

Features of Elderspeak and Sample Alternative Strategies
Williams et al. (2003)

   - Alternative strategy: refer to residents by their full name (i.e., Mrs. Robinson) or by their preferred name.

2. Inappropriate plural pronouns: substituting a collective pronoun, e.g., “we”, when referring to an independent older adult. Example: “Are we ready for our medicine?”
   - Alternative strategy: “Are you ready for your medicine?”

3. Tag questions: prompts the answer to the question and implies the older adult can’t act alone. Example: “You would rather wear the blue socks, wouldn’t you?”
   - Alternative strategy: “Would you like to wear the blue socks?”

4. Shortened sentences, slow speech rate, and simple vocabulary (baby talk)
   - These communication patterns do not improve comprehension of speech for most older adults and are perceived as patronizing or demeaning (Kemper & Harden, 1999; Giles et al., 1993).
Appendix F

Sample Elderspeak and Neutral-Talk Scenarios

*Imagine the following situation:*

You are attending some type of entertainment. During the intermission refreshments and desserts are available. They are easily accessible by all, including people in wheelchairs.

Someone comes over to you and says:

"I noticed you're still sitting down, and I came over to see how you're enjoying the show and to ask whether you would like some dessert or a drink." (neutral talk scenario)

*Now imagine you are in the same situation, except the other person treats you in a slightly different way.*

As before, you are attending some type of entertainment. During the intermission refreshments and desserts are available. They are easily accessible by all, including people in wheelchairs.

Someone comes over to you and says:

"I NOTICED you're still SITTING DOWN so I've brought a COFFEE and plate of GOODIES for you dear. I hope you're COMFY and ENJOYING the SHOW." (baby talk scenario)
Appendix G

Video Script Rewrite Exercises (Williams, 2001)

Doctor Appointment

Today Mrs. Thomas (seated in a wheel chair) is going to have her cast replaced at her physician's office. She fell down the stairs at her home, and was unable to get up. It took 8 hours for anyone to find and help her. Because she broke her ankle, she was admitted to the nursing home.

Aide: You're a lucky girl today. You're going to get to go outside.

Mrs. Thomas: Where are we going?

Aide: We're going to Doctor Butler's office so you can get a new cast.

Mrs. Thomas: This cast is just fine.

Aide: But, honey, we'll be able to walk on your foot when you get the new cast.

Mrs. Thomas: I just don't want to walk on it yet.

Aide: You don't. Now honey, the doctor knows best. Don't we want to be walking as soon as we can? And after the visit we'll stop and get some ice cream on the way back.

Rewrite

Aide: Well Mrs. Thomas, it's time to go.

Mrs. Thomas: Where are we going?

Aide: You're going to Doctor Butler's office to get your new walking cast.

Mrs. Thomas: This cast is just fine.

Aide: (gets down to eye level) It sounds like you don't want a new cast. Are you afraid of falling again? I know it was a frightening experience for you.

Mrs. Thomas: I just don't want to walk on it yet.

Aide: Mrs. Thomas, it's perfectly normal to worry about walking again. The physical therapist will work with you and I'll be here to help you. We'll start slowly. Why don't you talk about your concerns with Dr. Butler.
Visit
Mrs. Peterson is going to be 85 years old tomorrow. Her son, whom she has not seen for six months, is driving from out of state to see her.

Aide: Here you are the birthday girl. Let's get you dressed. Your son will be here soon.

Mrs. Peterson: I'd like to wear the...

Aide: Well this shirt brings out your baby blue eyes. Let's just wear this one.

Mrs. Peterson: I wish I had time to get my hair done.

Aide: Oh don't be silly. You look pretty as a picture just the way you are.

Rewrite

Aide: Let's get ready, your son is coming to visit today.

Mrs. Peterson: I need a clean blouse.

Aide: There are two in your closet, green or blue striped.

Mrs. Peterson: I'll take the striped one.

Aide: It will go well with your blue slacks.

Mrs. Peterson: I wish I had time to get my hair done.

Aide: I'll see if the beautician can squeeze you in this morning.

Mrs. Peterson: I'd really appreciate that. Thank you.
Appendix H

**Intervention Slides**

**Slide 1**

![Communication In-Service](image)

**Slide 2**

![Pre-Test](image)
Importance of Communication

Relating to others is the most basic human need

Many older adults rely on health care workers for their social contact

Older adults who relate closely with their care providers:
- Respond better to treatment
- Have a higher well-being
- Live longer!

Benefits of effective communication

- Saves time
- Prevents mistakes
- Calms patients
- Defuses power struggles
- Reduces isolation for residents
- Promotes self-esteem
- Reduces worker stress and burnout
Communication Barriers for Residents

1. Staff are under pressure to work quickly and efficiently
2. Older adults in nursing homes have less opportunities for interaction
3. Mismatch can occur between ability to communicate and other people's evaluation of that ability.
4. The language in which older people are addressed may be modified in terms of tone and content
   This may or may not suitable for a particular resident

Modifying our Speech

We all modify our speech when talking to others...but why?

What would happen if I thought you couldn't hear what I was presenting?

Same goes for older adults.

But what if you didn't have any trouble hearing what I was saying and I still modified my voice?

What would be your reaction?
Elderspeak

- "Facts" vs. "Fiction" of aging.
- We all hold "stereotypes" or beliefs about older adults that may or may not be accurate. These influence the way we communicate.
- "Like an automatic shift into low gear, we often revert to baby talk when communicating with seniors -- regardless of the person's ability to understand and respond."
- Known as "Patronizing Speech", "Overly Nurturing Talk" "Elderspeak" and "Secondary Baby Talk"
- Almost indistinguishable from baby talk (Caporael, 1981).

Elderspeak Examples

- Elderspeak: The speaker's voice comes across as exaggerated, such as when humoring a small child.

  "Look at those delicious carrots! Better eat them all. Our cook will feel real bad if you don't. My don't we love that smell! Mmmm. Yummy-yum."

- It's meant to be friendly or teasing, and cheerful, but actually distances the caregiver from the patient.
Slide 9

Key features of Elderspeak

- High pitched voice, exaggerating words (like baby talk).
- Using limited or childish vocabulary (beddy bye, blanky)
- Talking slowly, short sentences
- Using terms like "honey" or "dear"
- Over inclusive pronouns (e.g. "it's time for our bath" or "My don't we look nice!")
- Tag questions ("You want to wear the blue socks, don't you?")

Slide 10

Elderspeak (institutional talk)

Elderspeak is very common in nursing homes.

It appears to be based on stereotypes, not actual abilities.

because it is also heard where older adults are clearly functioning well such as banks and grocery stores.
So, to recap...

- While we sometimes believe that changing the way we speak such as slowing our talk, or using shorter sentences is in an effort to be helpful, this is not necessarily helpful.

- Elderspeak is believed to result from stereotypes we hold about the abilities of residents, not their actual abilities.
Why is Elderspeak a bad thing?

- Does not assist in communication
- Most older adults don't like it
- Reinforces dependence and undermines well-being
- Increases resistive behaviors

1. Elderspeak does not help older adults understand better

Elderspeak does not help residents understand.

The most common hearing loss actually reduces sensitivity to higher-frequency tones (presbycusis).

It is actually better to talk to residents in a lower voice.
Most older adults don't like it

- Older adults in nursing home settings find elderspeak disrespectful (Karl, 1994).
- See it as humiliating and patronizing (Karl, 1994).
- Rate communication as less satisfying (Karl, 1994).
- Feel patronized, irritated, angry, and feel inferior.
- Less than 5% of older adults feel comforted or nurtured by elderspeak.
- Aids who use patronizing speech are rated less favorably and as less competent by residents (Karl, 1994).

Elderspeak is also associated with Resistive Behavior

Resistive to Care Behaviors (hitting, biting, yelling)

Videotaped Findings:
The more the aid used elderspeak, the more resistance.

Implications for job related stress?
Stereotype Exposure

"Senile, Decrepit, Frail, Forgetful"

- Deficits in memory abilities (Long, 1991)
- General reductions in preventive health behaviors (Long, 1991)
- Walking performance (Pentland, 1992)
- Hearing (Long, 1991)
- Increased cardiovascular stress (Long, 1991)
- And declines in the will to live (Long, 1991)

What happens when continuously exposed to stereotypes?

- Fewer opportunities for meaningful communication
- This impacts older adult’s well-being
- Prompts residents to enact behaviors consistent with aging stereotypes (“I must really be getting old, better lay down”)
- Self-fulfilling Prophecy: Residents come to believe they are no longer independent, contributing adults and take on a passive dependent role

Better staff communication predicts better well-being in the form of less depression, and less staff turnover (McCallion et al, 1999).
Our Goals

1. Be able to identify elderspeak in video samples
2. Identify alternative strategies to using elderspeak
3. Self-monitoring and on the job practice of new communication skills

General Communication Guidelines

What is the primary reason older adults have trouble hearing/understanding?

Environmental Factors
- heating/AC units
- hallway traffic
- blaring TVs
Communication Strategies

- Prompt them to wear glasses or hearing aids. (But don't argue).
- Speak in a calm, respectful manner keeping the pitch of your voice low
- Avoid raising the pitch of your voice because this distorts the words
- Avoid speaking to the resident like a child (residents don't care for this)

Communication Guidelines II

Assume the resident will understand at least some of the information

Even with residents who have severe language problems NEVER assume the resident does not understand.

Repeat the main point or say it again another way -- don't just assume that the older person won't get it. (One size doesn't fit all)

Sit or crouch at the same eye level
Communication Guidelines III

- Talk to people with hearing impairments to find out the optimum tone to use.

- Do not assume that making things louder will solve the problem. Up the bass.

- Never talk about the resident with others as if they are not there. This can be difficult but also is very important.

Alternatives to Elderspeak

Diminutives: inappropriately intimate terms of endearment that imply a parent-child relationship.

Examples: honey, sweetie, dearie, grandma.

Alternative strategy: refer to residents by their full name (i.e., Mrs. Robinson) or preferred name.
Alternative Strategies cont.

Inappropriate plural pronouns: substituting a collective pronoun, e.g., “we”, when referring to an independent older adult.

Example: “Are we ready for our medicine?”

Alternative strategy: “Are you ready for your medicine?”

Alternative Strategies

Tag questions: prompts the answer to the question and implies the older adult can't act alone.

Example:
“You would rather wear the blue socks, wouldn't you?”

Alternative: “Would you like to wear the blue socks?”
Reflecting Feelings vs. Platitudes

Avoid using "platitudes"
E.g.: "Tomorrow's another day" or "Stuff Happens" or "You need a hobby."

Platitudes invalidate how a person is feeling.
It is better to reflect feeling first before moving a resident on.

Resident: "I want to go home"
Rf: "This has been a tough transition for you" OR "you're feeling like a fish out of water here" OR "Sounds like you're unhappy."

Resident: "What's the point of going on?"
Rf: "You're feeling like you've run out of gas" OR "down in the dumps" OR "ready to throw in the towel"

Video and Script Rewrite

- Exercise
- Reorientation
- Doctor's Appointment
- Visit
Slide 29

Exercise - Elderspeak

Slide 30

Exercise - Affirmative
Questions

Post test
Appendix I

Communication Evaluation Tool – Staff Version

Circle the number describing your evaluation of the communication encounter you just observed.

1. Was the Aide’s communication effective?
   Ineffective 1 2 3 4 5 Effective

2. Was the Aide’s communication appropriate?
   Inappropriate 1 2 3 4 5 Appropriate

Please indicate whether the aide showed the following communication behaviors during the encounter. Circle “Yes” if you observed the communication behavior occur and “No” if you did not observe it.

Did the Aide?

1. Use a kind of baby talk? Yes No
2. Use shortened sentences? Yes No
3. Use inappropriate terms of endearment (like “honey” “sweetie” “dearie”) Yes No
4. Use “we” and “us” when talking about things only the resident can do Yes No
5. Stay on the resident’s topic Yes No
6. Respond with acknowledgement Yes No
7. Talk to the resident differently than they would talk to a coworker or peer? Yes No
8. Use a high pitched voice Yes No

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Program Evaluation Form

Circle one number on each set of bipolar scales to indicate your attitude about the in-service training you have just completed. The most negative number is a “1” and the most positive number is a “7”. Your name is not needed. Thank-you.

1. **Behaviors recommended in the course:**
   - A. Bad  
     - 1 2 3 4 5 6 7 Good
   - B. Worthless  
     - 1 2 3 4 5 6 7 Valuable
   - C. Unfair  
     - 1 2 3 4 5 6 7 Fair
   - D. Negative  
     - 1 2 3 4 5 6 7 Positive

2. **Content/Subject matter of the course:**
   - A. Bad  
     - 1 2 3 4 5 6 7 Good
   - B. Worthless  
     - 1 2 3 4 5 6 7 Valuable
   - C. Unfair  
     - 1 2 3 4 5 6 7 Fair
   - D. Negative  
     - 1 2 3 4 5 6 7 Positive

3. **Course instructor:**
   - A. Bad  
     - 1 2 3 4 5 6 7 Good
   - B. Worthless  
     - 1 2 3 4 5 6 7 Valuable
   - C. Unfair  
     - 1 2 3 4 5 6 7 Fair
   - D. Negative  
     - 1 2 3 4 5 6 7 Positive
4. In “real life” situations, your likelihood of actually attempting to engage in the behaviors recommended in this course:
   A. Unlikely 1 2 3 4 5 6 7 Likely
   B. Impossible 1 2 3 4 5 6 7 Possible
   C. Improbable 1 2 3 4 5 6 7 Probable
   D. Would not 1 2 3 4 5 6 7 Would

5. Your likelihood of actually enrolling in another course of related content if your schedule so permits?
   A. Unlikely 1 2 3 4 5 6 7 Likely
   B. Impossible 1 2 3 4 5 6 7 Possible
   C. Improbable 1 2 3 4 5 6 7 Probable
   D. Would not 1 2 3 4 5 6 7 Would
Appendix K

Program Evaluation Form (additional items)

Please answer the following to in order to provide general feedback about the training. Circle the number to indicate to what extent you agree or disagree with the statement. If your opinion is neutral, circle 4, for Use the back of this form for additional comments. Your name is not needed. Thank you.

1. I learned new information in this training program.

   Disagree 1 2 3 4 5 6 7 Agree

2. I plan to use this training in my job

   Disagree 1 2 3 4 5 6 7 Agree

3. The video clips helped me learn the material

   Disagree 1 2 3 4 5 6 7 Agree

4. I would recommend this training program to other nursing home staff

   Disagree 1 2 3 4 5 6 7 Agree

5. I believe this training will help me communicate more effectively with residents

   Disagree 1 2 3 4 5 6 7 Agree

Additional Comments (Use back of this form):
Appendix L

Communication Evaluation Tool – Observer Version

Please indicate whether the aide showed the following communication behaviors during the encounter. Place an “X” in the table if you observed the communication behavior occur and leave blank if you did not observe it during the interaction.

<table>
<thead>
<tr>
<th>Did the Aide?</th>
<th>01</th>
<th>02</th>
<th>03</th>
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<th>05</th>
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<tbody>
<tr>
<td>Use a form of elderspeak?</td>
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<td>Use shortened sentences?</td>
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<td>Use a kind of baby talk?</td>
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<td>Use inappropriate terms of endearment?</td>
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<tr>
<td>Use “we” and “us” (overinclusive)</td>
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<tr>
<td>Use a “tag-question”?</td>
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<tr>
<td>Use a high pitched voice?</td>
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</table>
Appendix M

(The Perceived Understanding Instrument)

**Communication Form**

The following terms refer to feelings that are relevant when people attempt to make themselves understood by others. Please indicate the extent to which each term describes how you generally feel when trying to make yourself understood by the nursing home staff. As you fill in the answer sheet, respond to each term according to the following scale:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>Occasionally</td>
<td>Fairly</td>
<td>Many times</td>
<td>Very Often</td>
<td>Always</td>
</tr>
</tbody>
</table>

Read: On a scale of one to five where one is *Never* and six is *Always*:

1. **Satisfied**

   Never | 1 | 2 | 3 | 4 | 5 | Always

2. **Annoyed**

   Never | 1 | 2 | 3 | 4 | 5 | Always

3. **Relaxed**

   Never | 1 | 2 | 3 | 4 | 5 | Always

4. **Uncomfortable**

   Never | 1 | 2 | 3 | 4 | 5 | Always

5. **Pleasant**

   Never | 1 | 2 | 3 | 4 | 5 | Always

6. **Dissatisfied**

   Never | 1 | 2 | 3 | 4 | 5 | Always
<p>| | | | | | |</p>
<table>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Good</td>
<td>Never</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. Insecure</td>
<td>Never</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. Accepted</td>
<td>Never</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. Sad</td>
<td>Never</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11. Comfortable</td>
<td>Never</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12. A sense of failure</td>
<td>Never</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13. Happy</td>
<td>Never</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14. Incomplete</td>
<td>Never</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15. Important</td>
<td>Never</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16. Talked down to</td>
<td>Never</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Appendix N

(Rosenberg Self-esteem Scale)

Self-Attitude

Below is a list of statements dealing with your general feelings about yourself at this point in time.

Read: How strongly do you agree or disagree with these statements?

1. I feel that I'm a person of worth, at least on an equal plane with others.
   A. Strongly Agree   B. Agree   C. Disagree   D. Strongly Disagree

2. I feel that I have a number of good qualities.
   A. Strongly Agree   B. Agree   C. Disagree   D. Strongly Disagree

3. All in all, I am inclined to feel that I am a failure.
   A. Strongly Agree   B. Agree   C. Disagree   D. Strongly Disagree

4. I am able to do things as well as most other people.
   A. Strongly Agree   B. Agree   C. Disagree   D. Strongly Disagree

5. I feel I do not have much to be proud of.
   A. Strongly Agree   B. Agree   C. Disagree   D. Strongly Disagree

6. I take a positive attitude toward myself.
   A. Strongly Agree   B. Agree   C. Disagree   D. Strongly Disagree
7. On the whole, I am satisfied with myself.
   A. Strongly Agree    B. Agree    C. Disagree    D. Strongly Disagree

8. I wish I could have more respect for myself.
   A. Strongly Agree    B. Agree    C. Disagree    D. Strongly Disagree

9. I certainly feel useless at times.
   A. Strongly Agree    B. Agree    C. Disagree    D. Strongly Disagree

10. At times I think I am no good at all.
    A. Strongly Agree    B. Agree    C. Disagree    D. Strongly Disagree
Appendix O

(Mental Health Inventory – 5)

Your Feelings

These questions are about how you feel and how things have been with you during the past month. For each question, please indicate a number that comes closest to the way you have been feeling.

Read: On a scale of one to six where one is none of the time and six is all of the time:

1. During the past month, how much of the time were you a happy person?

<p>| | |</p>
<table>
<thead>
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<tbody>
<tr>
<td>All of the time</td>
<td>6</td>
</tr>
<tr>
<td>Most of the time</td>
<td>5</td>
</tr>
<tr>
<td>A good bit of the time</td>
<td>4</td>
</tr>
<tr>
<td>Some of the time</td>
<td>3</td>
</tr>
<tr>
<td>A little of the time</td>
<td>2</td>
</tr>
<tr>
<td>None of the time</td>
<td>1</td>
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</tbody>
</table>

2. How much of the time, during the past month, have you felt calm and peaceful?

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>All of the time</td>
<td>6</td>
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<tr>
<td>Most of the time</td>
<td>5</td>
</tr>
<tr>
<td>A good bit of the time</td>
<td>4</td>
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<tr>
<td>Some of the time</td>
<td>3</td>
</tr>
<tr>
<td>A little of the time</td>
<td>2</td>
</tr>
<tr>
<td>None of the time</td>
<td>1</td>
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</table>
3. How much of the time, during the past month, have you been a very nervous person?

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<tbody>
<tr>
<td>All of the time</td>
<td>6</td>
</tr>
<tr>
<td>Most of the time</td>
<td>5</td>
</tr>
<tr>
<td>A good bit of the time</td>
<td>4</td>
</tr>
<tr>
<td>Some of the time</td>
<td>3</td>
</tr>
<tr>
<td>A little of the time</td>
<td>2</td>
</tr>
<tr>
<td>None of the time</td>
<td>1</td>
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</table>

4. How much of the time, during the past month, have you felt downhearted and blue?

<p>| | |</p>
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<tbody>
<tr>
<td>All of the time</td>
<td>6</td>
</tr>
<tr>
<td>Most of the time</td>
<td>5</td>
</tr>
<tr>
<td>A good bit of the time</td>
<td>4</td>
</tr>
<tr>
<td>Some of the time</td>
<td>3</td>
</tr>
<tr>
<td>A little of the time</td>
<td>2</td>
</tr>
<tr>
<td>None of the time</td>
<td>1</td>
</tr>
</tbody>
</table>

5. How much of the time, during the past month, did you feel so down in the dumps that nothing could cheer you up?

<p>| | |</p>
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<tbody>
<tr>
<td>Always</td>
<td>6</td>
</tr>
<tr>
<td>Very often</td>
<td>5</td>
</tr>
<tr>
<td>Fairly often</td>
<td>4</td>
</tr>
<tr>
<td>Sometimes</td>
<td>3</td>
</tr>
<tr>
<td>Almost never</td>
<td>2</td>
</tr>
<tr>
<td>Never</td>
<td>1</td>
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</table>
Appendix P

Six-Item Screener

Questions (6 point test)

1. Remember 3 objects: Apple, Table, Penny

2. What year is this? (1 point)

3. What month is this? (1 point)

4. What is the day of the week? (1 point)

5. What were the 3 objects? (3 points, 1 point each)

Total Score ____
Appendix Q

Demographics

Participant ID: __________________

Please fill out the following:

AGE: ______

GENDER: ______ Male  ______ Female

ETHNIC GROUP:

___ American Indian or Alaskan Native
___ Asian or Pacific Islander
___ Black (Not of Hispanic Origin)
___ Hispanic
___ White (Not of Hispanic Origin)

DO YOU LIVE?

___ In own Room
___ With family/partner
___ With Roommate(s)
Chapter V: Dissertation

Abstract

Elderspeak or “baby talk” directed at older adults is a patronizing speech pattern believed to reinforce negative stereotypes of aging, deprive older adults of meaningful interactions, and erode their well-being. A brief communication in-service training based on Williams, Kemper, and Hummert (2003) was presented to nursing home staff to enact more helpful communication behaviors in place of elderspeak. Resident/Staff interactions were coded, and impact of the training on the residents’ communication satisfaction, self-esteem, and well-being was assessed across three time periods. A separate unit of untrained staff and residents served as a comparison group. Significant reductions in the proportion of interactions containing features of elderspeak were observed for the trained staff, along with significant increases in resident satisfaction and self-esteem.
Impact of an Elderspeak Educational Program on Resident Well-being, Self-Concept, and Communication Satisfaction

“Elderspeak” a term originally coined by Kemper (1994) is an undesirable yet common speech modification directed at older adults. Also known in the literature as patronizing speech (Ryan, Giles, Bartolucci, & Henwood, 1986), or secondary baby talk (Caporael, 1981), elderspeak consists of several characteristic psycholinguistic features including the use of childish terms (e.g. good girl), over inclusive pronoun modifications (e.g. it’s time for our bath), the use of terms of endearment in place of formal names (e.g. sweetie), tag questions which provide the illusion of choice while guiding to a listener to a particular response (e.g. You don’t really want to do that, do you?), a higher pitch and slow singsong tone of voice, as well as several other speech adjustments (for a review, see Ryan, Hummert, & Boich 1995). The primary goal of the present study was to examine if nursing home staff can successfully reduce their use of the elderspeak following a brief in-service training, and if so, explore if this reduction will contribute to the residents’ quality of life.

According to the Communication Predicament Model of Aging (Ryan, et al., 1986), elderspeak is problematic because it reinforces stereotypes of aging and reduces opportunities for older adults to engage in more meaningful communication, undermining their well-being and self-concept (Ryan et al., 1995). As O’Connor and Rigby (1996) found, a negative view of elderspeak, along with high reported frequency of receiving it, was predictive of low self-esteem in older adults. Similarly, Edwards and Noller (1998) indicate that older adults who perceive their caregivers communication as patronizing report low levels of well-being and a high level of perceived conflict in the caregiver-receiver relationship.
Beyond the detrimental impact that elderspeak may hold for the well-being and self-concept of older adults, a number of investigations have also sought to examine whether using elderspeak actually confers any communicative benefits. Using a referential communication task, a task where two participants take turns verbally guiding each other through a map, Kemper and Harden (1999) were able to examine if scripts read to older adults containing varying degrees of the speech accommodations inherent in elderspeak were associated with older adult performance on the tasks. Results of the study indicated that only two speech accommodations, semantic elaborations and semantic complexity were associated with reduced communication problems, and that these benefits were minimal. Further, components of elderspeak in speech tended to undermine older adults' self-ratings regarding their ability to communicate. Even though older adults were more successful on communication tasks when they received semantic elaborations, they actually rated themselves as making more communication errors than they did in neutral talk scenarios. Other characteristics of elderspeak such as reducing sentence length, slowing speech rate, or speaking using a higher pitched voice did not confer benefits, and may actually have impaired communication with older adults (Kemper & Harden, 1999). For instance, speech modifications such as increasing pitch and prosody may be counterproductive when considering that the most common form of hearing loss affecting older adults actually reduces sensitivity to higher-frequency tones (Van-Rooij & Plomp, 1990). While other researchers have found that some aspects of elderspeak may be beneficial in improving performance in certain areas such as recall of information (McGuire, Morian, Codding, & Smeyer, 2000), it is important to weigh these benefits in regard to how older adults actually perceive this kind of talk, as elderspeak may adversely impact how older adults feel about their communication abilities, and their relationship with the speaker.
There is considerable complexity in how older adults regard elderspeak. According to Nelson’s (2005) review of the empirical literature, while many older adults view elderspeak as condescending and ageist, there are some who do actually perceive elderspeak as nurturing and supportive. It has been found that when asked to rate communicative scenarios, some older adults with lower functional abilities (Caporael, Lukaszewski, & Culbertson, 1983) or a high need for succorance (O’Conner & Rigby, 1996) rate elderspeak scenarios more positively than those written in neutral talk. Proctor, Morse, and Kohnsari (1996) suggest that modified speech behavior like elderspeak may serve a positive function because it verbally communicates a sense of caring. Older adults may recognize this positive function. Additionally, Gould, Saum, and Belter (2002) found older adults attributed both stronger positive and negative emotional reactions to an instructional video presented in elderspeak than to the same video presented in neutral speech. These conflicting emotions indicate the complexity in older adults’ reactions to elderspeak, as it is possible for older adults to hold both strong negative and strong positive subjective reactions, such as perceiving elderspeak as caring but at the same time finding it patronizing. Giles, Fox, and Smith (1993) also examined perceptions of elderspeak by asking older adults to read a transcript of a conversation where a younger individual engaged in elderspeak with an older adult and report their personal experience of the speech used in the transcript. Results of the study indicated that overall, 58% of the older adult participants believed that in general they were addressed in a similar manner, 59% believed they had personally experienced the type of speech used in the scenario, 50% reported being irritated by that type of speech, 17% felt angered by it, and 15% reported it made them feel inferior, while less than 5% of the participants endorsed feeling respected and comforted when addressed by elderspeak.
In addition, older adults’ perceptions of elderspeak vary based on the setting in which they reside. While O’Conner and Rigby (1996) found that older adults surveyed in both community and nursing home settings rate elderspeak scenarios as disrespectful overall, the older adults living in nursing homes tended to be more accepting of it than those living in the community, possibly due to habitual exposure. While this research suggests that the majority of older adults react negatively and find the practice of elderspeak unwelcome, the variations in older adult’s perceptions of elderspeak speech behavior point toward the need to include resident outcomes when assessing communication training. This is particularly relevant when considering that perceptions of elderspeak may mediate outcomes related to self-worth and self-esteem (O’Connor & Rigby, 1996).

Research has also indicated that older adults may view those who use elderspeak less favorably. Gould and Dixon (1997) found that after viewing video vignettes of an actor engaging in either elderspeak or a neutral talk scenario and asked to identify which person they would prefer as their physician, older women significantly preferred the speaker who used neutral speech. Also utilizing vignettes, La Tourette and Meeks (2001) found that nurses who use elderspeak were rated less favorably by both nursing home residents as well as older adults residing in their homes, compared to nurses who do not use elderspeak. Additionally, other research suggests older adults rate users of elderspeak as less respectful (Ryan, Bourhis, & Knops, 1991). While it is not clear how these unfavorable perceptions might relate to caregiver outcomes such as job related stress or subjective burden, a recent case study by Cunningham and Williams (2007) provides preliminary support for the idea that elderspeak may be related to older adults’ resistive behaviors to care.
Rationale for Elderspeak Intervention

When considering that elderspeak is believed to reinforce negative stereotypes of aging and deprive older adults of meaningful interactions, impair communication, and is generally regarded negatively by older adults, reducing staff members' use of elderspeak has considerable merit. As Lanceley (1985) argues, features of elderspeak may serve a controlling rather than caring or speech comprehension function, and signal the power dynamic between nurses and older adults that exists in institutionalized settings. Inappropriate pronoun modifications such as using “we” may ignore the resident as an individual, and “tagging” may serve to enforce compliance by masking a declarative as a question, providing the illusion of choice to residents while directing them to a particular behavior (Lanceley, 1985). While it is true that some elements of elderspeak may be beneficial to older adults, those elements may be accompanied by features that do not improve performance and imply that older adults are incompetent (Torrey, Fussell, & Kiesler, 2005). Additionally, these benefits may be offset by psychosocial consequences (Ryan et al., 1995).

An intervention to reduce elderspeak has previously been evaluated in nursing home settings. In two separate studies, Williams et al. (2003; 2005) conducted an elderspeak intervention developed according to the Communication Predicament Model of Aging (Ryan et al., 1986). The main focus of the program was directed toward educating nursing home staff members about the communication barriers faced by nursing home residents, and introducing the staff members to more positive ways of communicating with residents as well as sensitizing the staff members to the characteristics of elderspeak.

The results of the Williams et al. (2003; 2005) studies are very encouraging as following the in-service, significant reductions were observed in staff members’ use of terms of
endearment, inappropriate collective pronouns, and shortened sentence length. In addition, in both studies, the immediate post-training conversations between the staff and the residents were rated by the experimenters as less controlling, and more respectful than the pre-training recordings. Further, Williams, et al. (2005) found staff members’ reduced use of elderspeak persisted at a two-month follow-up. While both of these studies demonstrated an educational intervention can successfully reduce staff members’ use of elderspeak, neither study addressed the impact their intervention had on the nursing home residents (McGilton, Irwin-Robinson, Boscart, & Spanjevic, 2006). Examining resident outcomes following an elderspeak training would provide a greater understanding of the success and significance the intervention, as well as empirical examination of the tenants of the CPA model.

The need for good communication training has been identified as one of the most important elements of care by nurses (McGrath, Yates, Clinton, & Hart, 1999). While it has been empirically demonstrated that communication interventions can improve the nursing home communication environment (McCallion, Toseland, Lacey, & Banks, 1999; Williams et al., 2005), financial constraints and time demands placed on nursing homes challenge the feasibility of such in-services. While the Williams et al. (2005) in-service was relatively brief, their intervention still required three one-hour group sessions, and one on one feedback sessions where staff participants were able to listen to personalized recordings of their own speech. This is particularly salient when considering that often only one to two hours are allotted for communication skills training in certified nursing assistant (CNA) training programs, and limits are placed on nursing home in-services (Winchester, 2003). Although the potential benefits of such trainings likely outweigh the time commitment, shorter interventions may be needed to meet the practical demands of nursing homes.
Consistent with previous research by Williams et al. (2003; 2005), the current study sought to evaluate if a brief communication training can reduce staff member use of elderspeak. Specifically, the present study sought to develop a training program that demanded less staff time yet was effective in increasing awareness of elderspeak, and in prompting trained nursing home staff to reduce their use of elderspeak. Williams (2001) suggested that in order to improve the intervention for future use, the intervention could be modified in an effort to cut down session length. The other objective of the current study was to evaluate whether the training program conferred any benefits to nursing home resident outcomes, specifically in terms of improved communication satisfaction, self-esteem, and well-being.

**Staff Outcomes**

Knowledge, attitude, and the intention to change behavior are variables that have been identified within the literature as important mediators for behavior change in communication trainings (Francke, Garssen, & Huijer Abu-Saad, 1995). Knowledge gain in particular is commonly assessed in intervention research and is thought to be an important determinant of nurses' behavioral changes in continuing education (Kiener & Hentschel, 1989; Warmuth, 1987).

**Hypothesis one:** Using the Communication Evaluation tool (Williams, 2001), pre- and post-test ratings of elderspeak in a staff-resident communication vignette will indicate a significant increase in staff knowledge and ability to identify elderspeak at the end of the in-service.

In addition, as Francke et al. (1995) reviews, attitude towards a topic and the associated behaviors of the topic can influence actual behavior. According to reasoned action theory the intention to demonstrate a particular behavior is closely related to actual behavior (Fishbein & Ajzen, 1975). That is, the greater the intent, the more likely it is a person will actually change
their communication behaviors. The predictive utility of this relationship is strong, and has been established in a number of studies (Sheppard, Hartwick, & Warshaw, 1988).

**Hypothesis two**: Comparisons of the sample mean to the midpoint score (80) on a measure of attitude and behavioral commitment to the training will indicate a significant difference in the direction of positive behavioral commitment and positive attitude towards the training (as measured by the Affective Learning Scale).

**Hypothesis three**: It is hypothesized that nursing home staff in a unit that has undergone training will reduce their use of elderspeak at both post-training assessments, and when compared to staff not receiving the training. Pre- and post-training comparisons of the proportion of observed interactions that contain elderspeak (identified by trained observers using the Williams, 2001 Communication Evaluation Tool) will indicate a significantly smaller proportion of interactions containing elderspeak characteristics at post-training.

**Resident Outcomes**

While prompting staff to change their communicative style has been the primary focus of past interventions, comparatively little attention has been focused on the residents’ responses to communication interventions. As initially stated, the CPA model posits that elderspeak reduces opportunities for older adults to engage in meaningful communication while promoting the notion that older adults are incompetent and dependent. This may lead older adults to experience decreased self-esteem and well-being as a result of their exposure (Ryan, et al., 1995). To more fully evaluate the merits of an elderspeak intervention it is important to understand what impact such training has on the experiences of the nursing home residents.

**Hypothesis four**: Following this, it was hypothesized that comparisons of older adult well-being (measured by the mental health inventory-5), self-esteem (measured by the...
Rosenberg Self-esteem scale) and communication satisfaction (measured by the Feelings of Understanding/Misunderstanding Scale) at the pre-training stage, in the week following the intervention, and at a three month follow up will indicate a significant increase in these variables at both post intervention assessments. Further, it was hypothesized that residents residing in the unit that received elderspeak training would have significantly higher well-being, communication satisfaction, and self-esteem at both post intervention assessments than the unit that did not receive the training.

Method

Participants

Nursing home staff (N = 25). The study was conducted at a large retirement community in rural Ohio. Staff members participated in the in-service training on a voluntary basis and were compensated with a $20 dollar gift certificate. 83% of the treatment unit staff completed the training. The recruitment of staff was not limited to, but emphasized nursing assistants, a group identified as having the most direct contact with residents. Due to facility concerns over the privacy of the staff, specific demographic data were not collected. In general however, the majority of staff that completed the training were CNAs, predominantly young adult to middle aged, Caucasian, and female. Data on the turnover rate for the trained group during the course of the study were not available.

Residents (N = 68). All nursing home residents in the selected treatment and control units of the facility were eligible to participate. Of the total number of residents in the selected units, 51% agreed to participate (N = 83). The resident attrition rate during the five months of the study was 18% leaving data from 39 residents in the treatment unit, and 29 residents in the control unit in the final analyses. Older adults qualified to be a resident of the facility on the
basis of needing assistance with activities of daily living or medical care. The two nursing home units were chosen on the basis of similarities in level of care, resident demographics, and resident population. No significant differences were found between baseline age $t(66) = 0.29, p = 0.71$, gender $\chi^2(1, N = 68) = 1.08, p = 0.30$ or mental status $t(66) = 0.37, p = 0.35$. Specific demographic information is listed in Table 1. After an in-person briefing on the nature of the study and going over informed consent with each resident, each resident was given a short quiz to ensure he/she understand the cost and benefits of participation and that withdrawal could occur at anytime without penalty. In compensation for their participation, residents received $2 each time they completed the questionnaires.

*Elderspeak Intervention*

The elderspeak in-service designed in this study had a firm basis in the empirically supported theory of reasoned action (TRA; Fishbein & Ajzen, 1975). In implementing the in-service under the TRA, the focus of the intervention was on the model’s three biggest components of behavioral change. The first being intent, with a goal of increasing the individuals’ intention to reduce elderspeak. The second being attitude, with a goal of fostering a positive attitude toward the topic and recommendations provided by the training. The third being subjective norms, that is, creating an atmosphere in the unit that recognized elderspeak as an undesirable speech accommodation. As knowledge gain has also previously been identified as a salient factor contributing to the actual behavior change of nursing home staff (Francke et al. 1995; Kiener & Hentschel, 1989), it was also assessed for a possible contribution to the success of the training.

The intervention occurred in a single 90-minute session, offered at either the end of the day shift or prior to the start of the afternoon shift. The objective of the intervention was to assist
the nursing home staff in becoming aware of elderspeak, identify the characteristic features of elderspeak, and to foster an understanding of how patronizing communication can impair communication and negatively affect the well-being of older adults. The content of the intervention included discussion of theory and practical exercises as this combination of didactic strategies has been indicated to foster more positive behavior change in nurses beyond theory or practical approaches alone (Kruijver, Kerkstra, Francke, Bensing, & Weil, 2000). In-class exercises included outlining the characteristics of elderspeak, distinguishing elderspeak from neutral speech, and viewing and critiquing written and video vignettes individually and as a group. Short video segments allowed staff participants the opportunity to identify features of elderspeak and affirming communication in videotaped vignettes and in actual interactions.

Program Evaluation

Applied knowledge. Knowledge gained from the intervention was measured using the same procedure outlined in Williams (2001). At the start of the program, staff participants observed a short videotaped nursing home interaction and then rated the video using the Communication Evaluation Tool (Williams, 2001; Williams et al., 2003; 2005). The original tool was shortened to consist of two items asking staff to describe the effectiveness and appropriateness of the interaction on a five-point scale, and eight items asking them to identify the presence or absence of specific communication behaviors such as “Did the aide use a kind of baby talk?”. At the end of the program, staff again rated the same videotaped interaction using the form. Pre- and post-test ratings for each item were compared to assess the effectiveness of intervention in increasing staff knowledge of elderspeak.

Attitude and intention to change behavior. The Affective Learning Scale (ALS; Andersen, 1979). The ALS is a 20-item measure asking participants to rate their attitudes
towards the intervention content, subject matter, recommendations of the course, and the instructor. This scale attempts to capture both attitudes towards the training, and behavioral commitment by having participants’ rate statements such as “Behaviors recommended in the course” on a 7-point scale along a bipolar continuum with endpoints such as *Valuable* or *Worthless*. Scores on the ALS range from 20 to 140, where a higher number indicates greater behavioral commitment and positive attitude toward the training. The ALS has been found to have high reliability, with alpha (split-half) reliability estimates as high as .98 (Rubin, Palmgreen, & Sypher, 2004). Internal consistency reliability for the current study was high (alpha = .94). In addition, staff completed a brief program evaluation sheet with opportunity for open-ended feedback.

*Behavioral changes.* Concealed naturalistic observation was used to evaluate if staff members reduced their use of elderspeak. Two trained research assistants, who were blind to both the treatment and control conditions as well as to which specific staff members in the treatment unit had undergone the elderspeak training, completed the observations. Prior to the in-service, each observed 15 unique interactions between staff and residents occurring in the common areas of the nursing home units. A total of 30 observations were coded for each group of staff (treatment and control). The same procedure was followed for post-training observations occurring three weeks after completion of the training, and also following a three-month period after the training. Each observed interaction was rated on a seven-item questionnaire based on the Communication Evaluation Tool (Williams, 2001). Research assistants indicated whether they observed specific communication behaviors in the interactions including baby talk, high pitch voice, shortened sentences, diminutives, over inclusive pronouns, and tag questions. Interrater reliability estimates were obtained on a sample of 15 staff/resident interactions for each of
the coded psycholinguistic features of elderspeak using Cohen’s Kappa statistic. Landis and Koch (1977) table of interpretation for categorical data was used to interpret the coefficients. The inter-rater reliability for global elderspeak was found to be high, Kappa = 1.00 (p < .001), 100%. Inter-rater reliability estimates for each of the psycholinguistic features are presented in Table 2.

Resident Measures

*Communication satisfaction.* Feelings of Understanding/Misunderstanding Scale. (FUM; Cahn & Shulman, 1984). The FUM is a 16-item measure based on five points ranging from *Never* to *Always* representing the degree to which each adjective reflects how a person felt after attempting to communicate with a specific target. The FUM includes eight adjectives to measure the perception of being understood such as “Satisfaction” and “Importance” and eight adjectives to measure feelings of misunderstanding such as “Annoyance” or “Dissatisfaction”. A single dissatisfaction item was changed from “uninterested” to “talked down to” to increase relevance to the current study. A composite score was calculated with a range from -32 to +32, where higher scores indicate a greater degree of perceived understanding. According to Cahn’s (1990) review, perceived understanding is significantly related to perceived empathy, relationship satisfaction, serves as a predictor in instructor evaluations, and correlates highly with communication satisfaction (0.75). Cahn and Shulman (1984) reported a test-retest reliability of .90 and an alpha of .89. A high degree of internal consistency reliability was found in the current study (alpha = .89). Test-retest reliability over a three month period in the control group was $r(29) = .78$.

*Self-esteem.* The Rosenberg Self-Esteem Scale (Rosenberg, 1989). This 10-item measure asks participants to indicate their degree of agreement on a 4-point scale regarding their self-
Esteem "I take a positive attitude toward myself" where higher scores indicate higher self-esteem. This instrument has been used widely in the literature and has a high reliability, and correlates with a number of self-esteem related constructs. The measure was modified to measure state self-esteem. Internal consistency reliability for the current study was alpha = .81.

**Well-being.** Mental Health Inventory – 5 (MHI-5; Veit & Ware, 1983). The MHI-5 is a 5-item measure of psychological well-being that requires participants to respond to questions regarding the frequency of their experiences such as "During the past month, how much of the time were you a happy person?" on a 6-point scale. Item scoring will be reversed so that it ranges from 1 (None of the time) to 6 (All of the time). The scale has a minimum score of 5 and a maximum score of 30, with higher scores indicating the experience of psychological well-being and the absence of psychological distress. This scale was developed from and correlated highly with a longer version (the MHI-38), and has well-established reliability and validity (Berwick et al., 1991). Internal consistency reliability for the current study was good (alpha = .84) with a test-retest reliability over a three month period in the control group at .73.

**Baseline mental status.** Six-Item Screener (SIS, Callahan, Unverzagt, Hui, Perkins, & Hendrie, 2002). The SIS is a brief six-item screener used to identify individuals with cognitive impairment. It is composed of three orientation items (year, month, and day) and a three-item word recall task. Scores range from zero to six where lower scores are suggestive of greater cognitive impairment. The SIS is brief, easy to administer, and has been validated in a variety of older adult populations (Callahan et al., 2002; Carpenter, Krall, & Tibrewala, 2007; Wilber, Lofgren, Mager, Blanda, & Gerson, 2005) The original authors report a sensitivity of 95% and specificity of 87% (Callahan et al., 2002).

*Procedure*
Pre-training stage. Informed consent was obtained from participating staff as well as all participating nursing home residents. After receiving an explanation of the study and providing consent, residents in both the intervention and control units completed a demographics sheet asking them their age and gender, a short mental status exam, along with baseline outcome measures of communication satisfaction, self-esteem, and well-being. All questionnaires were read to the participating residents. Trained research assistants, blind to the study hypotheses, conducted the pre-training field observations a week prior to the start of the in-service training.

Post-training stage. After staff members completed the in-service training, nursing home residents completed the measures of self-esteem, well-being and communication satisfaction within three weeks of the conclusion of the training, and again at a three month follow up to assess for change over time. Research assistants began the first post-training field observation three weeks following the training, and performed field observations again at a three month follow-up. After completion of data collection, all participants were fully debriefed to the research hypotheses and the nature of the coding.

Results

Program Evaluation and Staff Variables

It was predicted that staff attending a brief intervention would demonstrate greater awareness of elderspeak after the training, have a positive commitment and attitude toward the training, and would engage in a significantly lower proportion of interactions containing features of elderspeak at both post-training assessments. Further, it was predicted that trained staff members would engage in a significantly lower proportion of interactions containing features of elderspeak at both post training assessments when compared to an untrained unit of staff.

Knowledge Gain and Ability to Identify Elderspeak in Videos (Hypothesis one)
In order to examine if staff members significantly increased their awareness of elderspeak, staff members were asked to identify elderspeak in videos after receiving the training. A paired sample t-test was used to compare the staff member’s pre- and post-interval data from the “Was the aid’s communication effective?” and “Was the aid’s communication appropriate?” items of the Communication Evaluation Tool. The results indicated that the mean score for rating elderspeak as “effective” before the training ($M = 4.17$, $SD = 1.77$) was significantly reduced ($M = 3.20$, $SD = 1.70$), $t(24) = 2.83, p < 0.01$. Further, the mean score for viewing elderspeak as “appropriate” before the training ($M = 2.33$, $SD = 1.89$) was also significantly reduced ($M = 1.75$, $SD = 1.36$), $t(24) = 2.01, p < 0.05$.

To assess knowledge gain, McNemar proportions tests were conducted on each of the dichotomous pre- and post-test responses of the Communication Evaluation Tool (Williams, 2003). Results indicated that following training, staff member’s significantly improved in their ability to identify several key features of elderspeak in videos including baby talk, overinclusive pronouns, and shortened sentences (see Table 3).

Staff Attitude Toward Training (Hypothesis two)

To determine if nursing home staff trained in the intervention had a positive commitment and attitude toward the training a one-sample t-test was used to compare the sample mean to the midpoint score (80) on the Affective Learning Scale. The one-sample $t$ test was significantly different from 80, $t(23) = 19.06, p < .001$, indicating a positive attitude toward the training ($M = 130.25, SD = 12.91$).

Staff Reduction of Elderspeak: Within-group Differences (Hypothesis three)

Within-group differences in use of elderspeak: baseline vs. post-training Time 1. To test whether there was a significant difference between the proportion of each of the elderspeak
characteristics observed in staff/resident interactions after completion of the training, with respect to the proportion of interactions containing each characteristic before the training (hypothesis three), two-sample chi-square tests were performed on the observational data. The proportion of elderspeak features observed out of 30 interactions for the trained staff group is reported in Table 4. Results of the analysis indicated that the proportion of observed interactions containing “elderspeak (global)” in the trained staff group was significantly reduced between the baseline and the Time 1 post-training observations, $\chi^2 (1, N = 60) = 4.34, p < .05$. Significant reductions were also found in the proportion of interactions containing “shortened sentences” $\chi^2 (1, N = 60) = 4.29, p < .05$ and “high pitch”, $\chi^2 (1, N = 60) = 4.81, p < .05$ between baseline and post-training Time 1 observations. While there were slight reductions in the proportions of “baby talk” $\chi^2 (1, N = 60) = 0.35, p = .56$, “terms of endearment” $\chi^2 (1, N = 60) = .48, p = .49$, “overinclusives” $\chi^2 (1, N = 60) = 2.96, p = .09$, and “tag questions” $\chi^2 (1, N = 60) = 1.96, p = .16$, these differences did not reach significance. In regard to the control group, there were no significant differences between the proportion of the various elderspeak features at baseline and post-training Time 1.

Within-group differences in use of elderspeak: baseline vs. post-training Time 2. Two-sample chi-square tests were again performed to test differences in the proportion of baseline “Elderspeak” with respect to post-training Time 2 observations. The proportions of elderspeak features for Time 2 are reported in Table 4. Results indicated that the proportion of observed interactions containing elderspeak in the trained staff group was significantly reduced between the baseline and Time 2 post-training observations, $\chi^2 (1, N = 60) = 4.34, p < .05$. Staff also maintained their significant reductions in the proportion of interactions containing “shortened sentences” between baseline and post-training Time 2 observations $\chi^2 (1, N = 60) = 4.29, p <$
Further, there was a significant reduction in the proportion of observations containing
"terms of endearment" $\chi^2 (1, N = 60) = 6.67, p < .01$ and "overinclusives" $\chi^2 (1, N = 60) = 5.46,$
$p < .05$. While there were again slight reductions in the proportions of "high pitch" $\chi^2 (1, N = 60) = 3.35, p = .07,$ and "tag questions" $\chi^2 (1, N = 60) = 0.74, p = 0.39,$ these differences did not
reach significance. In regard to the control group, only "overinclusives" differed significantly
between baseline and post-training Time 2 $\chi^2 (1, N = 60) = 4.04, p < .05$.

**Staff Reduction of Elderspeak: Between-group Differences (Hypothesis three)**

**Baseline.** Two-sample chi-square tests were also used to evaluate whether the trained
group and control group staff differed in their use of elderspeak at baseline. Results indicated
that there were no significant differences in the proportion of "elderspeak" $\chi^2 (1, N = 60) = 0.67,$
$p = .80$, "shortened sentences" $\chi^2 (1, N = 60) = 0.00, p = 1.0$, "baby talk" $\chi^2 (1, N = 60) = 0.22, p$
$ = 0.64$, "terms of endearment" $\chi^2 (1, N = 60) = 2.31, p = .13$, "overinclusives" $\chi^2 (1, N = 60) =$
$0.11, p = 0.74$, and "high pitch" $\chi^2 (1, N = 60) = 0.00, p = 1.0$, and "tag questions", $\chi^2 (1, N =$
$60) = 4.29, p = .06$.

**Post-training Time 1.** While the proportions of many of the psycholinguistic
characteristics of elderspeak were lower in the trained condition than in the control condition at
Time 1 (see Table 4), the only significant difference was found between trained and control
group staff was for “shortened sentences” $\chi^2 (1, N = 60) = 4.29, p < .05$ in the direction of a
lower proportion among the trained staff unit. Values for other characteristics are reported as
follows: “elderspeak” $\chi^2 (1, N = 60) = 1.76, p = .18$, “baby talk” $\chi^2 (1, N = 60) = 2.96, p = 0.85$,
“terms of endearment” $\chi^2 (1, N = 60) = 1.62, p = .69$, “overinclusives” $\chi^2 (1, N = 60) = 1.96, p$
$ = 0.16,$ “tag questions” $\chi^2 (1, N = 60) = .35, p = 0.55,$ and “high pitch” $\chi^2 (1, N = 60) = 1.92, p$
$ = 1.66$. 

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Post-training Time 2. Consistent with Time 1, while the proportions of many of the psycholinguistic characteristics of elderspeak were lower in the trained condition than in the control condition at Time 2, with the exception of “baby talk” $\chi^2 (1, N = 60) = 4.29, p < .05$, they did not reach significance (see Table 4). Two-sample chi-square test values are reported as follows: “elderspeak” $\chi^2 (1, N = 60) = 1.15, p = .28$, “shortened sentences” $\chi^2 (1, N = 60) = 2.07, p = 0.15$, “terms of endearment” $\chi^2 (1, N = 60) = 3.16, p = .08$, “overinclusives” $\chi^2 (1, N = 60) = 1.02, p = 0.31$, “tag questions” $\chi^2 (1, N = 60) = 0.35, p = 0.55$, and “high pitch” $\chi^2 (1, N = 60) = 1.67, p = .20$.

Resident Outcome Variables

To determine whether there was an impact of the elderspeak training on resident outcomes (hypothesis four) specifically well-being, self-esteem, and perceived understanding, a 2x3 repeated measures MANOVA was conducted. The first factor was “condition” (training or control) with the second factor “time” (baseline, post-training Time 1, or post-training Time 2), and the dependent variables being the total scores of the self-esteem, perceived understanding, and well-being scales. The mean and standard deviation of each outcome variable for each condition are presented in Table 5.

Within-subjects Analysis

Results of the MANOVA indicted a significant within-subjects main effect for time, Wilks’ $\Lambda = .74, F(6, 61) = 3.50, p < .001$. The effect size was small (multivariate $\eta^2 = .26$). Univariate within-subjects main effects were examined using one-way repeated measures ANOVAs as follow-up tests for each of the dependent variables. Follow-up tests were corrected using the Bonferroni method with the $p$-value adjusted to .017 (.05/3). Results of the follow-up ANOVAs indicated that the ANOVA for the communication satisfaction variable was
significant, $F(2, 132) = 5.89, p < .017$, as well as the ANOVA for self-esteem $F(2, 132) = 4.33, p < .017$, while well-being $F(2, 132) = 1.62, p = .85$ failed to reach significance. Because the ANOVAs for communication satisfaction and self-esteem were significant, pairwise comparisons for these two variables were examined.

**Interaction Analysis**

Results of the MANOVA also indicated a significant Time X Group interaction effect, Wilks’ $\Lambda = .64$, $F(6, 61) = 5.82, p < .05$, multivariate $\eta^2 = .36$.

**Within-group pairwise comparisons for communication satisfaction by condition.** Post-hoc paired samples $t$-tests indicated a significant difference between communication satisfaction at baseline ($M = 14.43, SD = 12.01$) and post training Time 1 ($M = 21.90, SD = 9.56$) for residents in the trained group $t(38) = -5.80, p < .001$. Consistent with hypothesis four, the difference was in the direction of improved resident communication satisfaction following the training. This was in contrast to the control group where no significant difference in scores was found on communication satisfaction between baseline ($M = 13.13, SD = 11.03$) and Time 1 ($M = 12.31, SD = 9.12$), indicating the control group residents reported similar levels of communication satisfaction at both times, $t(28) = .62, p = .55$. Similar results were found for comparisons between the baseline and post-training Time 2 assessment, with a significant increase in resident communication satisfaction scores for the trained group between baseline communication satisfaction ($M = 14.43, SD = 12.01$) and post-training Time 2 ($M = 20.46, SD = 10.37$), $t(38) = -4.04, p < .001$ in the direction of improved communication satisfaction three months after the training. Again, there was no significant difference found between baseline ($M = 13.13, SD = 11.03$) and post-training assessment Time 2 ($M = 11.41, SD = 9.64$) for the control group residents, $t(28) = 1.30, p = .20$. 

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Within-group pairwise comparisons for self-esteem by condition. Post-hoc paired samples t-tests indicated that there was a significant difference between self-esteem scores at baseline \((M = 29.31, SD = 4.27)\) and post-training Time 1 \((M = 31.18, SD = 3.70)\) for residents in the trained group \(t(38) = -3.34, p < .001\). Consistent with hypothesis four, the difference was in the direction of improved resident self-esteem following the training. This was in contrast to the control group where no significant difference was found between baseline \((M = 29.67, SD = 5.03)\) and Time 1 \((M = 29.93, SD = 4.82)\), indicating the control group residents reported similar levels of self-esteem at both time periods, \(t(28) = -.48, p = .64\). A similar pattern of results was found for comparisons of baseline and post-training Time 2 self-esteem scores, with a significant increase in resident self-esteem scores for the trained group between baseline \((M = 29.31, SD = 4.27)\) and post-training Time 2 \((M = 31.87, SD = 3.61)\), \(t(38) = -4.46, p < .001\). There was no significant difference for the control group residents self-esteem scores between baseline \((M = 29.67, SD = 5.03)\) and post-training Time 2 \((M = 29.07, SD = 4.09)\), \(t(28) = .87, p = .38\).

Between-subjects Analysis

Results of the MANOVA also indicated a significant between-subjects main effect for condition, Wilks' \(\Lambda = .89, F(3, 64) = 2.77, p < 0.05\). The effect size was small (multivariate \(\eta^2 = .12\)). Univariate between-subjects main effects were examined using one-way ANOVAs as follow-up tests for each of the dependent variables. Follow-up tests were corrected using the Bonferroni method with the \(p\)-value adjusted to .017 (.05/3). Results of the follow-up ANOVAs indicated that there was a between group difference in regard to communication satisfaction, \(F(1, 66) = 8.40, p < .01\), however the ANOVA for self-esteem \(F(1, 66) = 1.74, p = .19\), and well-being \(F(1, 66) = 1.67, p = .19\) failed to reach significance.
Because the ANOVAs for the self-esteem and well-being scores were not significant, only the pairwise comparisons for communication satisfaction were examined. Post-hoc independent samples t-tests indicated that there were no significant differences between communication satisfaction at baseline \( t(66) = 0.45, p = .65 \) with residents in the trained group \((M = 14.43, SD = 12.01)\) and the control group \((M = 13.13, SD = 11.30)\) reporting similar levels of communication satisfaction prior to staff training. At post-training Time 1 however, there was a significant difference in communication satisfaction scores \( t(66) = 4.17, p < .001 \) with residents in the trained condition having significantly higher scores \((M = 21.89, SD = 9.56)\) than the control group \((M = 12.31, SD = 9.11)\). Further, at post-training Time 2, a significant difference was again found between residents in the training condition \((M = 20.46, SD = 10.37)\) and residents in the control group \((M = 11.41, SD = 9.64)\), \( t(66) = 4.17, p < .001 \). Residents in the trained condition had significantly higher scores in communication satisfaction than residents in the control group three months after the in-service training.

**Exploratory Analysis**

The relationship of the Feelings of Understanding/Misunderstanding scale to self-esteem and well-being has not previously been examined in the research. Positive correlations were found between residents' communication satisfaction and both self-esteem and well-being measures. The correlation of perceived understanding \((M = 13.88, SD = 11.64)\) and self-esteem \((M = 29.47, SD = 4.58)\) was significant, \( r(66) = .45, p < .001 \). The correlation of perceived understanding \((M = 13.88, SD = 11.64)\) and well-being \((M = 22.59, SD = 5.47)\) was significant, \( r(66) = .54, p < .001 \).
Discussion

Rationale and Summary of Results

Elderspeak, a speech accommodation directed at older adults, is a patronizing speech pattern believed to reinforce negative stereotypes of aging, deprive older adults of meaningful interactions, and erode their well-being (Ryan et al., 1986). A substantial body of research has documented the detrimental effects conveyance of stereotypes can have on older adults (Levy, 2003) as well as other research indicating that older adults react negatively to elderspeak (Cunningham & Williams, 2007; Giles, et al., 1993;) and certain aspects of it may actually impair rather than support effective communication (Kemper & Harden, 1999). As prompting staff members to reduce their use of elderspeak has considerable merit, the present study sought to evaluate whether brief communication training could reduce staff use of elderspeak, and if so, assess what implications this might have for residents residing in long term care. Results of the study supported the hypotheses that a relatively brief intervention could lead to reductions in staff member use of elderspeak, and in turn, lead to increases in the satisfaction and self-esteem of nursing home residents.

Discussion of Staff Improvements

Consistent with previous research (Williams et al. 2003; 2005), results of the present study indicated that through a brief educational intervention, it is possible to successfully reduce nursing home staff use of elderspeak. After attending the in-service training, nursing home staff members were able to reduce their use of elderspeak when communicating with residents in the common areas of the nursing home environment. This was reflected in the significant reductions found in the proportion of interactions coded for the global presence of elderspeak. Specifically, significant reductions in the component psycholinguistic features of elderspeak were observed in
both the short term (i.e. shortened sentences, and high-pitched voice), and long term follow up assessments (i.e. shortened sentences, terms of endearment, and overinclusive pronouns). While several other psycholinguistic features of elderspeak were not significantly reduced (i.e. baby talk, tag questions), the data indicated a general trend toward decreased use among trained staff. Interpretation of these results should consider however, that while five of the seven elderspeak characteristics met the criteria for high inter-coder reliability, the reliability coefficients for coding high pitch voice (73% agreement) and shortened sentences (47% agreement) were only marginally acceptable.

Of further note, the reductions in elderspeak observed immediately in the three weeks following the training program were maintained over three months. This was consistent with the previous training programs where staff reductions in elderspeak had been maintained at a two month period (Williams et al., 2005). Further, the untrained staff's use of elderspeak did not change over time. This was also consistent with previous research that indicated aides' use of elderspeak is fairly stable over time and across situations (Williams, 2001). These findings suggest it is less likely the observed reduction in trained staff's elderspeak was the result of normal fluctuations. The present study also represents an expansion of previous research by examining a wider variety of the elderspeak features that have been identified in the research literature, as previous research had only focused on collective pronouns, sentence length, and diminutives (Williams, 2001).

The success of the program in prompting staff members to make behavioral changes is notable, considering the relatively short length of the in-service (90-minutes) and the generally limited success of previous communication programs in these types of environments (Kruijver, et al., 2000). Several factors likely contributed to the overall success of the present program.
The brevity of the training program itself may have been a strength. As Williams (2001) reported, while the training was successful, staff did have some difficulty attending to some of the in-service activities as the training occurred during or after the workday. The shorter, focused, single session trainings in the current program allowed staff members to participate prior to the start of their shift, provided flexibility in which training session they chose attend, and fit the facility’s parameters for the amount of time typically dedicated to staff trainings and meetings. Another factor in the success of the in-service may have been anchoring the current training program in a well-supported theoretical framework of behavior change, the theory of reasoned action (TRA; Fishbein & Ajzen, 1975). The need for communication training programs to be based firmly in a strong theoretical foundation has long been stressed as an important component to success (Fielding & Llewelyn, 1987). As Kruijver et al. (2000) note in their review, the few in-service trainings that lead to actual behavioral changes combined practical with theoretical didactic strategies. The present elderspeak in-service differed from the two prior elderspeak training programs (Williams et al., 2003;2005) as it was based on the TRA model. Overall, staff members made significant improvements and their knowledge and ability to identify the key characteristics of elderspeak after the training, left with a generally favorable attitude toward the recommendations of the in-service, and endorsed a high degree of intention to change their behavior following the training. While the subjective norms component of the TRA model was not formally assessed, efforts were made to foster a sense that the treatment unit was to become an “elderspeak free environment”. This was facilitated by gaining strong support from the facility administrators, having directors of nursing, social workers, and other professionals in leadership positions attend the trainings alongside the CNAs, having participation strongly encouraged (but not compulsory), and ultimately having the training
written into the treatment units “best practices” (of note, elderspeak became a buzz word around the trained unit and was often used in a joking fashion with the primary investigator).

While staff members in the trained condition reduced their use of elderspeak across time, the difference in proportions between the trained staff and comparison group did not differ to a statistically significant degree. Given the improvements of the residents on the outcome measures following the training though, these findings may have been related in part to some of the limitations inherent in the method used to code elderspeak. As the trained coders were blind to the conditions (trained unit vs. untrained unit) they were also blind to which individual staff members had participated in the training. While the vast majority, 83% of the treatment unit staff completed the training, due to unavailability or scheduling conflicts, almost a fifth of the treatment staff did not (17%). The inclusion of interactions between residents and staff members that worked regularly in the treatment unit but never attended the in-service may have attenuated the findings, potentially masking a larger reduction in elderspeak. A related consideration is that although staff members in the trained and untrained unit had separate assignments, supervisors, and worked physically apart from each other, both were housed within the same facility. This opens the possibility that the nature of the intervention could have been shared with the untrained staff, altering their own communication behaviors.

An additional limitation is found in the coding of the global “absence” or “presence” of elderspeak. As elderspeak was operationally defined for the study, if any of the six target psycholinguistic features were observed in the interaction, the entire interaction was counted as an “elderspeak interaction”. Coding in this manner left the potential to ignore decreases in the use of multiple characteristics of elderspeak during a single interaction. The data indicate that prior to the training, many of the elderspeak characteristics occurred in combination such as high
pitch voice, overinclusive pronouns, shortened sentences, and tag-questions during a single interaction. After training however, trained staff appeared to take a more nuanced approach, such as only using one or two features of elderspeak during an interaction in communicating with residents. At baseline, staff members used an average of 1.88 psycholinguistic features per interaction coded as “elderspeak” with a range of 1 to 4. Immediately following the training the average number of psycholinguistic features used in an elderspeak interaction was 1.30 with a more restricted range of 1 to 2, and three months later the average was 1.13 with a range of 1 to 2 features. A final limitation of the observation coding method was the relative infrequency of some of the psycholinguistic features such as “inappropriate terms of endearment” and the more subjective nature of others (e.g. high pitch tone). As terms of endearment such as “sweetie” and “hun” and baby talk occurred with relatively low frequency at baseline, it was difficult to demonstrate that there was a significant reduction across only 30 sampled interactions.

In addition, the context of where the observation of the interactions occurred was primarily in the more public areas of the facility (break rooms, halls, dining areas), and this may also have skewed the sample to some degree as it follows that relatively more mobile, healthier, and communicatively intact residents would be more likely to congregate in these areas. A recent field study however suggests that the opposite may be true, with a possible skew toward less healthy adults in common areas. Residents with better physical and cognitive health as well as better independent mobility were observed to be more likely to withdrawal or “escape” from the common areas in attempts to regulate their social lives and privacy (Hauge & Heggen, 2007).

While recordings were not used in the current study due to facility request, video and audio recordings of interactions have been successfully used in the past to evaluate behavior change in elderspeak communication training programs (Williams et al., 2005). The use of
these types of recordings could have addressed many of the aforementioned limitations by allowing for the calculation of the frequency of elderspeak characteristics per utterance, allowed for evaluation of each individual staff member's behavior change overtime, as well as increasing opportunities to calculate inter-rater reliability for more subjective characteristics of elderspeak. One advantage of using the covert naturalistic observations over recordings was a possible reduction in the observer effect or staff member reactivity. As staff members were unaware their interactions were being observed and coded, these results may represent a more valid picture of the natural behavior change that can be expected following training, as it reduces self-presentation bias and other behavioral changes that occur when a participant is aware of being watched.

Discussion of Resident Outcome and Improvements

As neither of the previous two elderspeak intervention studies directly examined the residents' perspective, a chief goal of the training program was to address the impact of the intervention on nursing home resident outcomes, specifically communication satisfaction, self-esteem, and well-being. Results indicated that residents residing in the trained staff unit had a significant increase in their communication satisfaction as well as a small but significant increase in their self-esteem. These changes were in correspondence with staff reductions in their use of elderspeak, and were observed three weeks after conclusion of the training, and persisted at the three-month post assessment. While there was initially no significant difference between the resident treatment and comparison group on the dependent variables, the increase in resident communication satisfaction observed in the trained group was significantly higher in than the comparison unit at both post-training assessments. Conversely, there were no significant changes in communication satisfaction or self-esteem for residents in the untrained staff unit.
Further, while no significant changes were observed on the measure of well-being for the treatment condition, a small but significant reduction in baseline well-being was observed for residents in the untrained staff group at Time 2.

Greater exposure to elderspeak has been theorized by the Communication Predicament Model of Aging to create a cumulative detrimental impact on older adults (Ryan et al., 1995). The CPA model has been supported by studies indicating older adults who hold an unfavorable view of elderspeak and report a high frequency of exposure tend to have lower self-esteem (O’Connor & Rigby, 1996) and well-being (Edwards & Noller, 1998). Conversely, the Communication Enhancement Model (CEM; Ryan, Meredith, Mclean, & Orange, 1995) posits that better communication in the form of an individualized approach to older adults’ actual needs will lead to a greater sense of empowerment, well-being, and satisfaction with care providers. According to the CEM, the well-being of older adults is enhanced when their ability to express themselves is maximized rather than constraining older adults to respond in certain ways or depriving them of quality interactions. Findings from the present study are supportive of the central tenants of the CEM, specifically in regard to elderspeak. While there were no significant changes in either direction in the untrained staff members’ use of elderspeak, and correspondingly, in the comparisons group residents’ scores on outcome measures, a significant reduction in staff member use of elderspeak in the trained condition was temporally associated with increases in self-esteem and communication satisfaction. In short, as the communication environment improved in the trained unit, so too did older the adults sense of satisfaction and feelings that they were being understood, along with small but significant changes in ratings of their self-esteem.
One possible explanation for the observed findings is that resident communication satisfaction and self-concept improved because of a reduction in communication that older adults typically find aversive (elderspeak). Educating staff members about elderspeak may have disrupted the cycle of the Communication Predicament Model of aging, allowing residents to achieve more neutral or satisfying types of interactions. Additionally, prompting staff members to reduce their use of elderspeak may have also made it necessary for staff to rely on a number of other methods to assist communication that actually help enhance communication with the residents. While this is speculative, as staff members’ use of other techniques to aid in communication was not formally assessed by the present study, the elderspeak training did include a discussion of alternatives to elderspeak including environmental adjustments (e.g. closing the hallway door, turning down the television, asking residents to wear hearing aids), as well as more effective and presumably less offensive speech accommodations (e.g. speaking with a lower voice).

As previously noted, while significant increases were observed in resident communication satisfaction and self-esteem, interestingly, no significant changes were observed for well-being. This may reflect the limitations in the five-item version of the mental health inventory as well as the broadness of the well-being construct. The mental health inventory – five (Veit & Ware, 1983), while widely used and validated, is not an encompassing measure of well-being. Rather, due to its brevity it taps into a rather narrow range of mental health concepts including anxiety and depression, and leaves out the fuller scope of possible well-being related constructs such as life satisfaction, happiness, positive and negative affect, or even perceived mental and physical health. Additionally, other factors may play a potentially more prominent and direct impact on the quality of life of older adults, including loss of social partners, chronic
or acute illness, coping styles, loneliness, clinical anxiety, depression, and cognitive functioning (see Kiefer, 2008 for review of factors) and may have mitigated against any detectable improvements. Using a broader measure of well-being or conversely, taking a narrower approach by asking residents to rate their domain specific well-being, may have been more sensitive to possible changes in the quality of life of residents.

Methodological Limitations

While the present study served as a replication and extension of previous research in elderspeak, it is important to acknowledge the limitations of the findings. It should be noted that the resident participants of the study resided in a single large long term care facility, and therefore the nursing home environment and the residents themselves may not be representative of the larger population. The present study also employed a pre and post intervention quasi-experimental design, with a nonrandomly selected control group. While the use of both a pretest and a comparison group makes it easier to avoid certain threats to internal validity, because the two groups are nonequivalent (assignment to the groups is not random), selection bias may still exist. While it is notable that there were no significant differences between the two conditions in age, gender, or on a brief measure of mental status, data on a number of other potentially important resident characteristics such as health, marital status, or length of time in the facility was not collected for comparison. Further, while the study outcomes varied statistically with the intervention, statistical association does not imply causality. Thus, the observed changes in resident satisfaction and self-concept may be the result of alternative explanations. One alternative is that the nonspecific factor of simply offering training to one group of staff and not to the other could have lead to changes in the trained group perception of their work leading to satisfaction benefits in the residents (Mayo, 1933). Although ethical considerations may apply,
the current study may have been improved here by providing the comparison group staff with a
“placebo” or unrelated training session.

Another limitation of the study was the relatively small sample size with only 51% of eligible residents agreeing to participate, and the high attrition rate (18%) of residents who participated in the study. This opens the possibility of selection or attrition bias. Not reporting the specific demographic characteristics of the trained staff may also be an important factor for future research on the generalizability of the findings. Due to facility concerns over the privacy of the staff, specific demographic data were not collected related to age, sex, education, position, or time on the job. In general however, the majority of staff that completed the training were CNAs, predominantly middle aged, Caucasian, and female. Further, data on the turnover rate for the trained group were not available, which may be an important factor in regard to the long term benefits of the training, especially when considering the national annual turnover rate for CNAs has been previously reported at 71% (AAHSA, 2008). As a result of turnover, efforts to create a better communication environment for residents may have start at the level of initial care provider training, such as including discussions of elderspeak in medical schools, psychology graduate training, social work education, nurse and CNA training programs and be revisited through facility in-services post-training.

Directions for Future Research

Replication of these results are necessary to increase support for the study hypotheses and the underlying theory of the CPA model. As only relatively brief measures were used to assess resident dependent variables, future studies may want to include additional resident outcome measures that correspond to the predictions of the Communication Enhancement Model (Ryan et al., 1995) such as older adults perceived health, broader measures of well-being, self-efficacy,
feelings of empowerment, and feelings related to the quality of interactions and competence of the staff. Including a wider array of measures may aid in gaining a broader understanding of the clinical significance of conducting elderspeak training for residents as well as broadening the knowledge base regarding how communication impacts the self-evaluation of older adults. Qualitative interviews or measures that directly ask residents about changes they may have noticed regarding staff communication after completion of the training may also provide insight into how explicitly aware residents are of staff behavioral changes. As recent research indicates staff elderspeak use is associated with increased disruptive behaviors on the part of residents (Cunningham & Williams, 2007), future elderspeak in-service programs may want to evaluate whether the staff themselves notice benefits in their effectiveness and work related stress following the training.

It may also be interesting for future research to examine the perspectives of other groups beyond older adults who have been identified as the targets of inappropriate speech accommodations or patronizing talk. For instance, speech directed at individual with developmental disabilities has been described in the literature as slowed, marked by pauses, simplified, and repetitive (Depaulo & Coleman, 1986). It would be interesting for future research to examine the degree to which these accommodations aid in communication, how it is perceived by the recipients, and if like elderspeak, these speech accommodations reinforce negative stereotypes, deprive individuals of quality interactions, or foster dependence. Similar research may also examine the experiences of individuals with foreign accents or who primarily use a foreign language (Caporael, 1981) and older children considered to have more of a “baby face” than a mature one (Zebrowitz, Brownlow, & Olson, 1992) who have also been identified as targets of patronizing speech.
Overall, the training program described in this study indicated that nursing home staff can improve their style of communication to promote the well-being of residents. It is with hope that future research will validate these findings and continue to underscore the potentially negative effects speech overaccommodations have for nursing home residents. An additional measure of impact of this and future research on elderspeak is rooted in dissemination. Continuing to develop and implement trainings to improve the communication environment of nursing homes, and incorporating discussions of elderspeak into the curriculum of tomorrow’s practitioners is perhaps the best mechanism to ensure optimized communication with older adults.
References


Table 1

Description of participants (N = 68)

<table>
<thead>
<tr>
<th>Resident Demographics</th>
<th>Trained Unit (N = 39)</th>
<th>Control Unit (N = 29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>84.87(8.44)</td>
<td>84.21(6.58)</td>
</tr>
<tr>
<td>Sex:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Female</td>
<td>30</td>
<td>19</td>
</tr>
<tr>
<td>Ethnicity:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>37</td>
<td>29</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Mental Status</td>
<td>4.01(1.77)</td>
<td>4.48(1.45)</td>
</tr>
</tbody>
</table>

*Note. Age is presented as mean with (standard deviation). Mental Status denotes mean score on Six Item Screener (Callahan et al., 2002).*
Table 2

Inter-rater Reliability for the Coding of Elderspeak Characteristics

<table>
<thead>
<tr>
<th>Elderspeak Features</th>
<th>Percentage of Agreement</th>
<th>Kappa</th>
<th>Interpretation*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elderspeak (Global)</td>
<td>100%</td>
<td>1.00</td>
<td>almost perfect agreement</td>
</tr>
<tr>
<td>Shortened Sentences</td>
<td>47%</td>
<td>0.29</td>
<td>slight agreement</td>
</tr>
<tr>
<td>Baby Talk</td>
<td>87%</td>
<td>0.42</td>
<td>moderate agreement</td>
</tr>
<tr>
<td>Terms of Endearment</td>
<td>100%</td>
<td>1.00</td>
<td>almost perfect agreement</td>
</tr>
<tr>
<td>Overinclusive Pronouns</td>
<td>93%</td>
<td>0.84</td>
<td>almost perfect agreement</td>
</tr>
<tr>
<td>Tag Questions</td>
<td>100%</td>
<td>1.00</td>
<td>almost perfect agreement</td>
</tr>
<tr>
<td>High Pitch</td>
<td>73%</td>
<td>0.44</td>
<td>moderate agreement</td>
</tr>
</tbody>
</table>

Note. Inter-rater reliability was established across 15 interactions between nursing home residents and staff.

*Landis and Koch (1977) interpretive values: slight (0.0 - 0.20), fair (0.21 - 0.40), moderate (0.41 - 0.60), substantial (0.61 - 0.80), or almost perfect (>0.80).
Table 3
Proportion of Staff Identifying Elderspeak Characteristics in a Scripted Video Interaction

<table>
<thead>
<tr>
<th>Elderspeak Features</th>
<th>Pre-training Proportion</th>
<th>Post-training Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baby Talk</td>
<td>75%</td>
<td>100%*</td>
</tr>
<tr>
<td>Shortened Sentences</td>
<td>46%</td>
<td>79%*</td>
</tr>
<tr>
<td>Overinclusive Pronouns</td>
<td>54%</td>
<td>83%*</td>
</tr>
<tr>
<td>Terms of Endearment</td>
<td>96%</td>
<td>100%</td>
</tr>
<tr>
<td>Use of high pitch voice</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

* Indicates significant difference in pre- and post-training proportion at p < .05

Note. To assess knowledge gain, staff members were asked to identify listed features while viewing a scripted elderspeak video.
Table 4

<table>
<thead>
<tr>
<th>Features</th>
<th>Trained Staff</th>
<th></th>
<th></th>
<th>Untrained Staff</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline</td>
<td>Time 1</td>
<td>Time 2</td>
<td>Baseline</td>
<td>Time 1</td>
<td>Time 2</td>
</tr>
<tr>
<td>Elderspeak (Global)</td>
<td>57% (17)</td>
<td>30% (9)</td>
<td>20% (6)</td>
<td>53% (16)</td>
<td>47% (14)</td>
<td>43% (13)</td>
</tr>
<tr>
<td>Shortened Sentences</td>
<td>13% (4)</td>
<td>0% (0)</td>
<td>0% (0)</td>
<td>13% (4)</td>
<td>13% (4)</td>
<td>6% (2)</td>
</tr>
<tr>
<td>Baby Talk</td>
<td>7% (2)</td>
<td>3% (1)</td>
<td>0% (0)</td>
<td>10% (3)</td>
<td>17% (5)</td>
<td>13% (4)</td>
</tr>
<tr>
<td>Terms of Endearment</td>
<td>20% (6)</td>
<td>13% (4)</td>
<td>0% (0)</td>
<td>7% (2)</td>
<td>10% (3)</td>
<td>10% (3)</td>
</tr>
<tr>
<td>Overinclusive Pronouns</td>
<td>17% (5)</td>
<td>3% (1)</td>
<td>0% (0)</td>
<td>20% (6)</td>
<td>13% (4)</td>
<td>3% (1)</td>
</tr>
<tr>
<td>Tag Questions</td>
<td>13% (4)</td>
<td>3% (1)</td>
<td>6% (2)</td>
<td>0% (0)</td>
<td>7% (2)</td>
<td>3% (1)</td>
</tr>
<tr>
<td>High Pitch</td>
<td>33% (10)</td>
<td>10% (3)</td>
<td>13% (4)</td>
<td>33% (10)</td>
<td>23% (7)</td>
<td>27% (8)</td>
</tr>
</tbody>
</table>

Note. Values indicate the percentage of times the elderspeak marker was observed across 30 interactions. Values in parentheses are the actual number of times the elderspeak characteristic was observed. Percentages in the same row and under the same group heading (Trained or Untrained) that do not share the same subscript are statistically different at \( p < .05 \).

*Elderspeak (Global) was coded when staff used any of the target features of elderspeak in an interaction in addition to the specific feature.
Elderspeak 123

Table 5

Means and Standard Deviations for the PUI, RSE, and MHI-5 for Intervention and Control

<table>
<thead>
<tr>
<th>DV</th>
<th>Intervention Group Residents</th>
<th>Control Group Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline</td>
<td>Time 1</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction</td>
<td>14.44(12.01)</td>
<td>21.90(9.56)</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>29.31(4.26)</td>
<td>31.18(3.69)</td>
</tr>
<tr>
<td>Well-being</td>
<td>22.41(5.58)</td>
<td>24.33(4.60)</td>
</tr>
</tbody>
</table>

Note. Values indicate means and (standard deviations). Means in the same row and under the same group heading (Intervention or Control) that do not share the same subscript are statistically different at $p < .017$. 

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January 28, 2008

Lonnie Bradford  
4216 Romaine Dr.  
Cincinnati, OH 45209

RE: 0477-3 Impact of an Elderspeak Educational Program on Nursing Home Resident Well-being, Self-concept, and Communication Satisfaction.

Dear Mr. Bradford:

The IRB has received your response to my letter of January 25, 2008. You appropriately addressed all of the outstanding concerns about your study.

Your study is approved in the Expedited Review category. Approval expires 1/28/09. A progress report must be filed with XU’s IRB by the expiration date. The form is enclosed for your convenience and is also available at www.xu.edu/IRB/IRBforms.htm.

If there are any adverse events or modifications to the study, please notify the IRB immediately.

We wish you success with your research!

Sincerely,

Kathleen J. Hart, Ph.D.  
Interim Chair

KJH:mm

C: Dr. Christian End, Faculty Advisor

Enclosures: Approval-stamped informed consent form

Progress Report form