Improving Nursing Home Communication: An Intervention to Reduce Elderspeak

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Purpose: Opportunities for social interaction are lacking within today’s nursing homes and staff frequently communicate messages of dependence, incompetence, and control to residents. This study evaluated a brief educational program designed to increase staff awareness of intergenerational speech modifications such as elderspeak and strategies to enhance communication. Design and Methods: A communication-training program was provided to Certified Nursing Assistants (CNAs; n = 20) in five nursing homes. Audio recordings of staff interacting with residents before and after training were transcribed, coded, and compared on features of elderspeak. Results: After the training, CNAs reduced their use of elderspeak including terms of endearment, inappropriate collective pronouns, and shortened sentence length. In addition, the emotional tone of staff speech with residents was rated as less controlling and more respectful after the training while caring qualities were maintained. Speech rate did not change significantly. Implications: Teaching CNAs to reduce elderspeak holds promise as an approach to improving the social environment in nursing homes.

Key Words: Communication and aging, Staff training

An estimated 5% of adults aged 65 years or older or 1.43 million persons live in nursing homes (NHs) today (United States Administration on Aging, 2000), and this number is projected to increase to 3 million by 2030 (Siegel, 1996). Adjustment to life in a long-term care facility is a radical change for new residents who relinquish responsibility for basic life decisions (Gubrium, 1975; Hayley, Cassel, Snyder, & Rudberg, 1996). Most NH residents have experienced losses of physical health and functional independence, but do not experience reductions in their psychosocial needs. These individuals may still attain “successful aging” by maintaining cognitive functioning and active involvement with others (Rowe & Kahn, 1997).

Social interaction is a critical factor affecting the quality of life of older adults. For the increasing number of elders requiring supportive care in a NH, opportunities for socialization rest primarily on interactions with staff. However, examination of NH talk reveals a failure to meet residents’ needs for affiliation and social support (Grau, Chandler, & Saunders, 1995), and the prevalence of a communication style termed patronizing talk or elderspeak (Caporael, 1981; Ryan, Hummert, & Boich, 1995). By using elderspeak, staff may unknowingly reinforce dependency and engender isolation and depression in residents, contributing to the spiral of decline in physical, cognitive, and functional status common in NH residents (Ryan, Giles, Bartolucci, & Henwood, 1986).

This study investigated the effectiveness of a brief communication-training program in reducing the use of patronizing speech by Certified Nursing Assistants.
(CNAs) during their daily interactions with residents. Recordings of CNA–resident interactions were analyzed to compare communication behaviors before and after the training.

**Communication in NHs**

Despite normal and pathological changes that increase communication barriers for older adults, social contact and support from significant others continue to be important and exert protective effects on physical and mental health (Estes & Rundall, 1992; Kiely, Simon, Jones, & Morris, 2000). NH residents express a desire for friendships with staff to meet needs for affiliation and report that relationships with staff are critical to satisfaction with NH life (Grau et al., 1995). The power of communication is confirmed by evidence that residents respond to care and live longer when they are engaged in interpersonal relationships with staff (Kiely et al., 2000; Walk, Fleishman, & Mandelson, 2000).

Unfortunately, communication in NHs may be inadequate to meet the social contact and support needs of residents. Analyses of NH communication reveal a relative absence of talk, predominantly task-oriented talk, and talk that encourages dependency (Baltes & Wahl, 1996; Grainger, 1995). Recent efforts to train NH staff to increase communication with residents have proven successful without increasing the amount of caregiving time (Burgio, et al., 2001).

Caporael (1981) found that secondary baby talk comprised 20% of staff–resident interactions in NHs. She reported that this speech style had a slower rate, exaggerated intonation, elevated pitch and volume, greater repetition, and simpler vocabulary and grammar than normal adult speech. Because this style of communication implicitly questions the competence of older listeners, researchers have described it as patronizing (Hummert & Ryan, 1996) and, to emphasize its use with older adults, termed it elderspeak (Kemper, 1994). Diminutives, tag questions, and collective pronoun substitutions are other characteristic features of elderspeak, as is alteration in emotional tone (Ryan et al., 1995).

In the Communication Predicament of Aging Model, Ryan and colleagues (1986) show how the speech modifications of elderspeak may derive from stereotypical views of older adults as less competent communicators than younger persons and how the modifications of elderspeak may project these stereotypes to older listeners. Elderspeak can, therefore, begin a negative feedback loop for older persons, who may respond to it with decreased self-esteem, depression, withdrawal, and the assumption of dependent behaviors congruent with stereotypes of frail elders. Kemper and Harden (1999) confirmed that the altered prosody, shortened sentences, and slowed speech of elderspeak failed to improve comprehension for older adults and were perceived negatively by the older listeners. Although elderspeak may be meant to promote clear and effective communication with older adults, the Predicament of Aging Model suggests that it will fail to accomplish these goals.

**Study Overview and Hypotheses**

This study tested the effectiveness of a brief intervention teaching NH staff to minimize their use of elderspeak. Prior to training, we recorded CNA participants while providing routine care to residents. The CNAs then attended three 1-hr communication-training classes provided in their facility by the principal investigator (K. W.). Following training, we recorded each CNA again while they interacted with residents. We used comparison of pretraining and post-training speech samples on measures of elderspeak to determine whether aide use of elderspeak with residents was reduced after the intervention.

**Settings**

Five NHs volunteered to participate in the study. The facilities included private nonprofit and for-profit facilities that were located in a variety of northeastern Kansas communities, ranging in population from 1,000 to 90,000. Facility size ranged from 50 to 214 beds. Three facilities included special care units and two featured assisted living units.

**Participants**

**Staff.**—Three to five CNAs from day and evening shifts in each facility (N = 20) volunteered to participate and provided signed consent. CNA age ranged from 18 to 60 years; the mean and median age was 34. Experience ranged from 0 to 20 years (M = 6.5 years, Mdn = 5.75), and time in the facility varied from 0 to 20 years (M = 2.25, Mdn = .88). All participants had completed high school and CNA training. The sample included two Blacks and one male.

**Residents.**—We requested consent from the legally responsible representative for all residents in the participating facilities to permit the investigator to record residents during interactions with the aides and to gain access to medical records. Approximately 50 to 60% of residents (n = 107) elected to participate with a mean age of 83 years. The majority of resident participants were female (78%), widowed (74%), and Caucasian (98%). One-third (33%) had a primary or secondary diagnosis of dementia.

**The Intervention**

We designed the intervention to alert CNAs to features of elderspeak and its negative impacts on older adults and to introduce more effective communication strategies. Considering staffing shortages in today’s
long-term care facilities, we limited the length to three 1-hr sessions to assure a program that was feasible. Following a pilot study, we presented the program to the CNAs in each facility during their workday.

The program content focused on alerting participants to the communication barriers within NHs, understanding elderspeak and its potential negative effects on residents, and practicing effective communication skills. We selected teaching strategies for their appropriateness for adult learners. They included limited lecture, group discussion, and role play to practice new skills. A central feature of the program was the inclusion of videotaped staff–resident interactions from an actual NH as well as simulated vignettes between two role-playing actresses. We used these realistic vignettes to illustrate elderspeak features presented in the lectures. Participants critiqued these vignettes and then reenacted them substituting effective communication strategies for those of elderspeak (see Figure 1). We also gave participants samples of their own conversations with residents taken from the pre-training assessment recordings, providing a nonthreatening means to evaluate their own communication.

Recordings of Communication Behaviors

We obtained speech samples of each CNA interacting with residents by using wireless receivers that transmitted to a recording station. The transmitters were attached to the CNA’s uniform with a small microphone that could be switched off and on. We recorded each CNA for 1 to 2 hr, until we obtained five recordings of conversations of adequate length with participating residents. We obtained five interaction segments for each aide before and after training to provide a representative sample. We compensated CNAs $10 for participation in each recording session. We archived the recordings in digital audio files, and later transcribed them, coded them for elderspeak measures, and rated them on emotional tone.

Psycholinguistic Measures

Our research team transcribed the interaction segments, segmented them into utterances, and coded them for mean length of utterances (MLU), diminutives, and collective pronoun substitutions by using the system developed by Kemper and colleagues (Cheung & Kemper, 1992; Kemper, Kynette, Rash, O’Brien, & Sprott, 1989). We established reliability for utterance transcription at 90% agreement with a second trained transcription specialist.

Elderspeak Markers.—We identified characteristic features of elderspeak including diminutives and in-
appropriate collective pronouns from each coded transcript and then tabulated them by using the Systematic Analysis of Language Transcript (SALT) computer program (Miller & Chapman, 1984). Diminutives include inappropriately intimate and childish nominal references such as honey and good girl. Collective pronouns inappropriately include the collective reference when a singular form is grammatically correct. For example, “Are we ready for our bath?” We established reliability by another trained coder who coded 10% of the sample with 94% agreement. Because of varying lengths of interaction segments, we computed diminutives and collective pronoun measures in per utterance counts.

Verbal Fluency.—We used two measures to assess fluency of staff speech. The SALT program determined MLU in words. We determined speech rate by dividing the duration of two isolated utterances by the number of words.

Emotional Tone Coding.—We accomplished the measurement of the emotional tone of each CNA’s speech to residents by an integration of strategies from prior research (Hummert & Ryan, 1996; Hummert et al., 1998). An attempt to categorize the speech samples as “overly nurturing,” “directive,” and “appropriate” failed to provide sensitive measurement of samples as “overly nurturing,” “directive,” and “appropriate” failed to provide sensitive measurement of this affective variable; we then implemented a scaled rating of emotional tone by multiple naive raters. A group of raters (N = 20) associated with a university volunteered as raters. We used flyers to solicit the volunteers to rate the affective tone of recorded interactions with compensation of $20 for 2 hr of work. Students and staff, aged 18 to 47 years old, participated. Their educational levels ranged from 1 year of college to doctoral degrees.

Small groups of raters listened to a random selection of conversation samples (n = 60), including interactions randomly selected from each CNA conversing with residents before and after training. Half of the raters evaluated the two sample sets in the original order; the other half listened to the sets in reverse order. After listening to each 1-min conversation, the rater evaluated the emotional tone of the aide on a 5-point Likert scale for nine items indicating to what degree the CNA’s communication behavior fit the descriptor (1 = not at all, 5 = very). The nine descriptors reflected three dimensions of emotional tone: caring (warmth, support, and caring), respect (polite, respectful, and patronizing [reverse coded]), and control (dominating, controlling, and bossy). The dimensions reflect theoretical variations among the different types of emotional tone of elderspeak. We established internal scale reliability within each dimension (Cronbach’s α for caring = .93, control = .92, and respect = .70).

Results

The hypothesis predicted that communication training would significantly reduce characteristic features of elderspeak in CNA–resident interactions, reflected in the reduced use of diminutives and inappropriate collective pronouns, increased utterance length and rate of speech, with reductions in control and increases in respectfulness of messages. We used post-training recordings to reassess each CNA’s communication behaviors during interactions with five residents within 1 week of completing the training program.

We conducted a within-participants multivariable analysis of variance (MANOVA) comparing CNA–resident talk pre- and post-training with diminutives per utterance, collectives per utterance, and MLU as the dependent variables. The results for the MANOVA indicated a significant effect of training, Wilks’s Λ = .329, F(3,17) = 11.55, p < .001, multivariate η² = .34.65. We conducted ANOVAs on each dependent variable as follow-up tests to the MANOVA. Means and standard deviations are presented in Table 1. As predicted, CNAs used fewer diminutives per utterance, F(1,19) = 22.54, p < .001, η² = .54, and collectives per utterance, F(1,19) = 5.27, p = .033, η² = .22 after training. Also as expected, MLU increased after training, F(1,19) = 5.32, p = .033, η² = .22. This analysis supports the effectiveness of the intervention in significantly reducing key features of elderspeak that may negatively impact on residents. Only speech rate showed no effect of training, F(1,19) = 2.64, p = .12, η² = .12.

A parallel MANOVA comparing ratings of emotional tone (care, respect, and control) also revealed a significant multivariate effect of training, Wilks’s Λ = .38, F(3,17) = 9.37, p = .001, η² = .62. As expected, (see Table 1 and Figure 2), post-training conversations were rated as more respectful, F(1,19) = 5.05, p = .04, η² = .21, and less controlling, F (1,19) = 28.66, p = .000, η² = .60, than pretraining conversations. The caring dimension did not vary between the pre- and post-training samples, F(1,19) = .02, p = .88.

Table 1. Means (Standard Deviations) Comparing Speech of Aide–Nonresident, Aide–Resident Pretraining and Aide–Resident Post-Training on Psycholinguistic and Emotional Tone Measures

<table>
<thead>
<tr>
<th>Variable</th>
<th>Aide–Resident Pretraining</th>
<th>Aide–Resident Post-Training</th>
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<tbody>
<tr>
<td>Diminutives per 100 utterances</td>
<td>6.57 (5.61)</td>
<td>1.34 (1.98)*</td>
</tr>
<tr>
<td>Collectives per 100 utterances</td>
<td>7.10 (4.93)</td>
<td>4.56 (2.66)*</td>
</tr>
<tr>
<td>Mean length of utterance</td>
<td>5.0 (.81)</td>
<td>5.4 (.84)*</td>
</tr>
<tr>
<td>Speech rate (s/word)</td>
<td>.30 (.01)</td>
<td>.29 (.01)</td>
</tr>
<tr>
<td>Care dimension</td>
<td>3.5 (.35)</td>
<td>3.49 (.39)</td>
</tr>
<tr>
<td>Respect dimension</td>
<td>3.54 (.41)</td>
<td>3.66 (.28)*</td>
</tr>
<tr>
<td>Control dimension</td>
<td>2.2 (.47)</td>
<td>1.93 (.45)*</td>
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*p < .05.
n² = .001, demonstrating that the intervention altered the emotional tone of the CNAs’ speech to the residents by reducing controlling messages and increasing respect while maintaining caring aspects.

Discussion

This study demonstrates that educating health care providers about elderspeak and its potential negative impacts on older adults can reduce staff use of elderspeak in NHs. Minimizing elderspeak is hypothesized to enhance communication, potentially contributing to improved cognitive and functional levels for residents and to increased satisfaction with NH life. Although this study does not assess resident responses to communication, anecdotal reports suggest that residents were aware of a change in staff talk and participated more in dialogue after the training. Future study will measure resident perceptions and involvement in communication as well as cognitive and functional impacts of affirming messages. Continued use of learned communication skills by staff must also be monitored over time. Ultimately, achieving optimal communication environments in NHs may contribute to higher levels of well-being for older adults and to increased satisfaction with NH life.

References


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