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The Effects of Elderspeak on the Mood of Older Adults with Dementia: A Preliminary Report

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The Effects of Elderspeak on the Mood of Older Adults with Dementia: A Preliminary Report

by

Kenia Torres-Soto

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

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In

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The Effects of Elderspeak on the Mood of Older Adults with Dementia

Kenia Torres-Soto

This Master's Thesis has been examined and approved by the following members of the student's committee.

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Abstract

Barriers to effective and harmonious communication between caregivers and those affected with dementia are common and inevitable. An example of a common barrier is aphasia, which is a prevalent communication deficit associated with dementia. The social environment may further hinder harmonious communication through the use of well-intended, but ineffective speech patterns. Elderspeak (ES), which is infantilizing speech directed at older adults, is one such speech pattern that is commonly used in long-term care facilities (LTC) and is related to negative outcomes for older adults receiving it. Older adults with mild to moderate cognitive impairment who were residents at a LTC facility were exposed to two videos depicting a typical interaction between a nursing staff at a LTC facility and a resident. Prior to using the videos with older adults, they were validated for accuracy by nursing staff at a LTC facility. The videos depicted a "neutral" interaction (N-ES) and one that used elderspeak. Self-reports of mood were collected for older adults before and after each video. Behavioral observation of affect was collected while the older adults watched the videos. Qualitative interviews investigating preferences and opinions were administered after each video. Contrary to existing literature, results indicated that the participants in this study had similar emotional and behavioral responses to both videos. Further research is necessary in order to more fully determine what contextual variables affect how individuals with dementia respond to elderspeak.

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The Effects of Elderspeak on the Mood of Older Adults with Dementia: A Preliminary Report

According to demographic census data from 2010, the number of older adults (i.e., age 65 and older) in the U.S. is projected to increase by 92.3% between 2016 and 2060 (US Census Bureau, 2018). Furthermore, the number of individuals 85 years and older is projected to increase by roughly 200%, and by over 600% for centenarians within that timeframe. By 2030 one in five Americans is projected to be an older adult, with that year being the first in which older adults outnumber children.

The demographic changes projected to take place by 2030 will mark a societal shift for the U.S., with one key feature being a change from a youth-dependent to predominantly elderly-dependent society. In contrast to the youth dependency ratio projections for the upcoming decades, the old-age dependency ratio is estimated to increase considerably (US Census Bureau, 2018). For 2020, there may be three-and-a-half working-age adults for every older adult qualifying for retirement, decreasing to two-and-a-half working-age adults to one older adult for 2060. These changes, which will be new to the U.S. compared to other countries (e.g., Japan, Canada, and European countries), suggest that more time and resources may need to be allocated to the aging population (US Census Bureau, 2018).

According to the World Alzheimer's Report by the International Association for Alzheimer's Disease (2018), there are over 50 million individuals with a dementia diagnosis worldwide. This number is estimated to increase to 152 million by 2050. This prediction is congruent with the estimated increase in the older adult demographic. Hence, a proportion of the required resources allocated to this population may include long-term care services. Although many challenges exist between older adults with dementia and professional caregivers in long-term care settings and one prominent challenge is enhancing effective communication between caregivers and older adults.

The Importance of Communication

Dementia inevitably leads to progressive declines in various abilities (e.g., attention, memory, motor skills), which can obstruct harmonious interactions between affected individuals and their caretakers. In particular, dementia causes declines in expressive and receptive language skills, which makes it difficult to comprehend what others are saying and impedes effective communication of needs and preferences. Due to the persistent retrograde nature of dementia, it is important to consider what impact the social environment may have on the behavior and quality of life of the affected. Although "language" and "communication" are large constructs that can include a wide array of specific skills, existing research has uncovered a number of communication variables that directly influence the quality of interactions between caregivers and persons with dementia. For example, Christianson et al. (2007) examined what type of commands issued by caregivers maximized the likelihood of compliance when working with older adults with dementia. Results indicated that alpha commands (i.e., straightforward, concise, and feasible) accounted for more compliance than beta commands (i.e., ambiguous, interrupted, and complicated). Compared to alpha commands, beta commands resulted in a lower frequency of compliance and a higher frequency of noncompliance and forced compliance. Commands that were stated directly, that repeated or clarified a previous command, and that were repeated exactly were found to produce better compliance. Questions that required a motoric response were found to produce relatively poor compliance. Collaborative commands (e.g., "let's brush our teeth") were found to result in equal rates of compliance and noncompliance and high rates of forced compliance. This finding is consistent with previous literature indicating that this communication style may be related to resistiveness to care (Williams et al., 2008). Overall, this study has implications for training caregivers to issue more specific and effective instructions.

Gentry and Fisher (2007) investigated whether responses of conversation partners contributed to excess verbal deficits in individuals with Alzheimer's disease (AD) by indirectly punishing verbal behavior. There is evidence that indirect repairs used by caregivers when patients make mistakes reinforce patient efforts to communicate verbally while direct repairs may serve to punish these efforts. In

an indirect repair, the listener paraphrases the speech of the person with AD. In a direct repair response, the listener interjects with corrective feedback. Use of indirect repairs was associated with more words spoken, longer speech duration, fewer topic changes, and fewer incomplete interactions compared to direct repairs.

Caretakers may present additional barriers to communication, compounding those already existing due to abilities deficits. For example, caretakers are often faced with the need to balance heavy workloads and provide humanistic care. This struggle can lead to care that is largely task-driven (Williams, 2006). Personal stressors and cultural differences may also provide barriers to harmonious care (Williams, 2006). Picture an elderly nursing home resident, with the characteristic verbal manifestations of dementia, interacting with a nursing staff during activities of daily living (ADL). This may look like two individuals struggling to understand one another during a task (e.g., grooming) under time constraints. One can presume that frustration will develop in both parties. It is then easy to see why it may be tempting for a caretaker to avoid frustration on both sides by simply completing the task him/herself. However, engaging residents in these ADLs has been empirically shown to be related to longevity in the affected (Lichtenstein, Federspiel, & Schaffner, 1985; Ryan, Hummert, & Boich, 1995). At the same time, resident frustration during these activities may lead aggression, noncompliance, negative mood, social isolation, idleness, and dependence.

It is also important to consider how resident-caretaker communication may unintentionally affect dependency. The literature suggests that LTC staff communication typically reinforces dependent behavior (Baltes & Wahl, 1996). This evidence suggests that dependence behaviors may be indirectly reinforced by caregiver attention, while those who appear to be independent and strong receive less attention. In other words, over time a pattern of dependence may emerge as a function of obtaining attention. Dependence-support communication may also indirectly establish a perception of imbalance of power and project a message of control over rather than that of rehabilitation and independence (Lanceley, 1985). Fortunately, there is evidence that training staff to avoid dependence-support

communication reduces resident depression and problem behaviors, and improves staff retention (Ryan et al., 1995).

Elderspeak. An example of a dependence-support communication style that is relevant to elderly individuals, but particularly to those dwelling in LTC facilities, is elderspeak. Elderspeak is a simplified form of speech that resembles "baby talk" and is typically directed towards older adults (Williams, 2006). This communication style is characterized by exaggerated intonation, simplistic vocabulary and grammar, elevated pitch and volume, inappropriate use of diminutives, and use of collective versus first person pronouns, among others (Ryan et al., 1995; Williams, 2006). Although the use of elderspeak may reflect caretakers' attempts to communicate effectively and provide affection to the individuals receiving it, the communication predicament of aging model attempts to explain how it may be failing to do that and contributing to negative outcomes.

The communication predicament of aging model (CPAM), introduced by Ryan et al. (1995), was developed from the communication accommodation theory. The communication accommodation theory suggests that people adjust their communication style according to who they are speaking in an attempt to achieve effective communication. The CPAM goes further by modifying this model for older adults, suggesting that this tendency may result from erroneous assumptions of dependence and/or incompetence in this population (see **Figure 1**). In line with negative feedback models, the CPAM suggests that such communication modification may reinforce dependence behaviors and constrain opportunities for satisfying communication in the elderly. This may negatively affect self-esteem and psychological well-being of older adults (Ryan et al., 1995).

As seen in **Figure 1**, individuals encountering elderly persons first recognize old-age cues (e.g., using a walker, gray hair, posture, setting of interaction, social role). While it is possible for individuals to hold positive and negative stereotypes for older adults, this model specifically refers to the eliciting of negative stereotypes. Thus, the recognition of old-age cues elicits negative stereotypes associated with

older adults, such as dependency, incompetence, and cognitive decline, which can lead the conversant to modify their speech according the stereotypes. According to the CPAM, these erroneous assumptions are linked to age-dependent overaccommodations of patronizing communication.
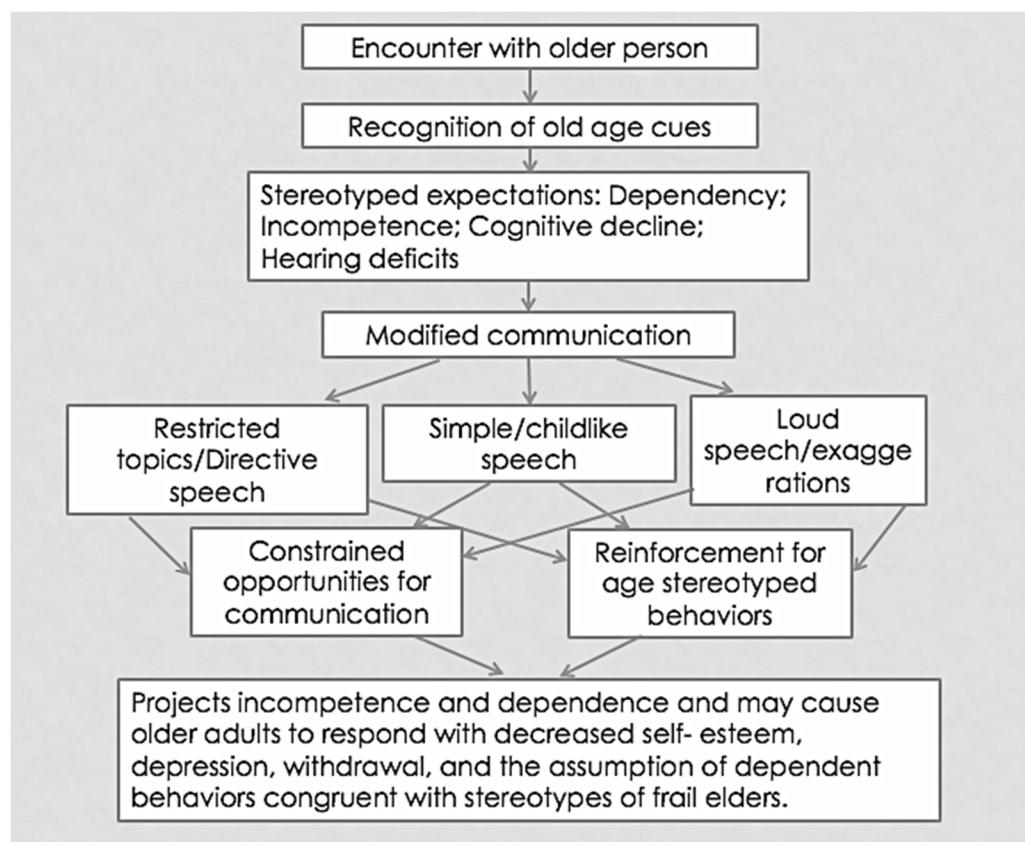
Figure 1. The Communication Predicament of Aging Model (Ryan et al., 1995)

While this communication style is clearly destructive at face value, the implications of its use are profound. The literature surrounding elderspeak revolves around the paradox that while caretakers may use it to convey care and warmth, this patronizing communication style projects messages of incompetence, helplessness, and dependence that can negatively affect the self-esteem, personal identity, and psychological well-being of those receiving it (Williams, 2006). This may be particularly true for older adults dwelling in LTC facilities whose self-esteem may already be threatened by the setting and

context of their social interactions. A brief review of this literature on the negative effects of elderspeak is provided.

Caporael (1981) investigated the prevalence of an intense form of elderspeak, labeled secondary-baby-talk, in a nursing home setting and found that it was used considerably (up to 20% of the time). Speech recordings of secondary-baby talk were content-filtered and judged to be characteristically identical to primary baby-talk that is used with children. Moreover, Caporael (1981) found that nurse ratings of residents' cognitive abilities did not predict whether secondary baby-talk was used.

There is also evidence suggesting that elderspeak may be a precursor to resistance to care (e.g., pushing, swearing), which is common in older adults with dementia (Cunningham & Williams, 2007). Williams et al. (2008) assessed interactions between nursing home residents and staff during ADLs to evaluate the effects of elderspeak. The results indicated that elderspeak led to an increased probability of resistance to care compared to normal speech.

Elderspeak has also been judged to be condescending, disrespectful, and unwelcomed by individuals receiving it. La Tourette and Meeks (2000) compared community-dwelling older adults and nursing home residents regarding their perceptions of elderspeak and neutral speech. Both nursing home residents and community residents rated the nurse more favorably and the resident more satisfied in a vignette depicting neutral speech compared to a vignette depicting elderspeak. Community residents also viewed the resident as less competent in the elderspeak vignette.

Other studies have investigated contextual factors that increase the likelihood that elderspeak is used. According to Lombardi et al. (2014) elderspeak may be considered more acceptable in institutional settings such as hospitals or nursing homes. For example, ES was found to be more acceptable for residents older than 70 and those with mild to severe memory problems or are disoriented. In contrast, ES was found to be less acceptable for use with residents who appear to be angry compared to residents who appear happy or sad. In regard to the perceived acceptability based on relationship to the resident, results

indicated that the use of ES is more appropriate when nurses had regular interaction with residents, compared to infrequent or no interactions. The use of ES was also found to be less appropriate when other residents or family members were present during nurse-resident interaction. Finally, there was a significant difference in perceived appropriateness of the use of ES regarding task-type, such that it was rated more appropriately when the task was hands-on (e.g., grooming) compared to a hands-off interaction.

Balsis and Carpenter (2005) investigated the effects of the speaker's age and relationship to older adults on participant perceptions of those using and receiving elderspeak in dialogue vignettes. Results indicated that individuals using and receiving elderspeak were viewed negatively regardless of the age of the speaker or their relationship to the recipient. The speaker was evaluated as having a worse demeanor in the elderspeak than in the neutral speech vignette. Individuals receiving elderspeak were viewed as having a worse mood and decreased ability.

Although there is evidence suggesting that elderspeak is an undesirable and possibly ineffective form of communication, there is also evidence for some beneficial aspects to using elderspeak. Kemper and Harden (1999) investigated the effectiveness of using elderspeak by having older adults watch a video that described a route that was traced on a map. The results indicated an improvement in performance and reports that the instructions were easier to follow when the speaker reduced the grammatical complexity (e.g., minimized the number of subordinate and embedded clauses) and used semantic elaboration (i.e. repeated and expanded upon what was said). These findings suggest that some features of elderspeak may improve older adults' ability to follow and comprehend directions. Reduced grammatical complexity, frequent repetition, and slower rate may also be beneficial when communicating with individuals with dementia (Williams, 2006).

Mood

Guzaman-Valez et al. (2014) investigated whether feelings could persist in persons with AD, even after their declarative memory for what caused the feelings had faded. Participants experienced two emotion-induction conditions in which they watched film clips intended to induce feelings of sadness or happiness. Real-time emotion ratings were collected at baseline and at three post-induction time points (immediately after, 10-15 minutes after, and 20-30 minutes after) and a test of declarative memory was administered shortly after each condition. Results indicated that individuals with AD can experience prolonged states of emotion that persist well beyond their memory for the events that originally elicited the emotion. The preserved emotional life evident in persons with AD has important implications for their management and care and highlights the need for caretakers to foster positive emotional experiences.

Purpose of the Study

Relatively little research has been devoted to understanding how individuals with dementia respond to elderspeak, particularly those individuals with more severe cognitive impairment. Therefore, the purpose of this study is to expand on the existing literature regarding the effects of elderspeak on the mood of older adults with moderate to severe dementia. More specifically, the purpose of the study is to determine: 1) how elderspeak affects mood in persons with dementia when compared to speech that does not include elements of elderspeak and, 2) if individuals with dementia have a preference for elderspeak or communication that does not include elderspeak.

It is predicted that participants will exhibit more negative than positive mood and affect in the elderspeak compared to the neutral speech video condition. It is also predicted that negative mood and affect will increase, and positive mood and affect will decrease between pre and post elderspeak-video exposure. Finally, it is predicted that the neutral speech video condition will not be related to significant mood and affect changes between pre and post video exposure.

Methods

Participants & Setting

   Phase I. Participants were seven nursing staff members at a LTC facility located in the Midwest that serves retired nuns. Participants were recruited by asking administrators to identify direct care staff who would be willing to participate in the study.

   Phase II. Participants included individuals who had mild to moderate cognitive impairment and resided in an assisted living facility. Participants were recruited by asking facility administrators or direct care staff to identify residents that likely had cognitive impairment, and would enjoy interacting with research staff, and who had sufficient verbal abilities to provide responses to questions. Refer to **Table 1** for participant characteristics.

   In total, 17 individuals were screened for participation in the study, seven were included, seven were screened but did not qualify for inclusion, and three were withdrawn. In order to estimate the severity of cognitive impairment, the Brief Interview for Mental Status (BIMS) was administered (Chodosh, et al., 2008). The BIMS appraises cognitive function using temporal orientation and recall items. The memory portion consists of immediate and delayed (after a period of approximately one-two minutes after presentation) recall of three items (i.e., sock, blue, bed). For delayed-recall, individuals who were unable to recall the items on their own were given category cues (i.e., "a color"). The orientation portion included items inquiring about the current year, month, and day of the week. Scoring the BIMS involves assigning whole number scores to each accurate item, which are then added to yield a sum score (0-15). Participants scoring below 13, which indicates at least moderate cognitive impairment, were included in this study. The mean BIMS score for those included (n=7) was 8.71 (SD= 2.98), with scores ranging from 3 to 12 (**Table 1**).

Table 1

Sample Characteristics

Variable	Mean (SD)	Mode	N (%)
Age	Total: 85.35 (8.81) Included: 89.43 (8.58)		
Memory Unit Diagnosis:		Total: No (88.20%) Included: No (85.70%) Total: None (29.40%) Included: UD (42.90%)	
None			5 (29.40%)
Unspecified dementia (UD)			4 (23.5%)
Mild cognitive impairment			2 (11.80%)
Mild intellectual disability			1 (5.90%)
AD			1 (5.90%)
Transient ischaemic attack			1 (5.90%)
BIMS	Total: 10.53 (4.02) Included: 8.71 (2.98)		

*Includes all screened participants

Materials and Instruments

Videos. Videos used in all phases and conditions of the study were scripted by students and faculty with background in clinical psychology and nursing. Scripts were based on the professional experience of nursing students who worked in nursing homes with elderly individuals with dementia. Two videos were created that were similar in terms of content and length (~ 6 min in length) and differed in terms of communication style used. The video scenarios presented an older adult, with some cognitive and physical impairment interacting with a nursing staff in a long-term care facility. The interaction

depicted a student actor with experience as a CNA and an older adult actor as a nursing staff getting a resident ready for lunch after a nap. Specifically, the scenario involves the nurse 1) arousing the resident from a nap, 2) assisting the resident out of bed, 3) helping the resident put on socks, shoes, and a sweater, 4) assisting the resident to a sink and mirror to groom, and 4) assisting the resident to the door to so she can go to lunch.

The first video (i.e., N-ES) demonstrated an interaction with "typical" or "neutral" communication (e.g., neutral tone and volume, the use of titles and last names). In addition, in this video, the nursing assistant provided the resident with opportunities to make choices (e.g., about clothes to wear, whether she wanted to get out of bed).

The second video (i.e., ES) depicted an interaction where the nursing assistant used communication that included elements of elderspeak (e.g., elevated pitch, terms of endearment, childish vocabulary). In addition, the resident was provided limited choices in this video. Refer to **Appendix A** for transcripts of the videos.

Staff interview. A nine-item interview (i.e., Phase I Interview) was used for Phase I of the study to determine the accuracy and relevance of the scenarios depicted in the two videos. Sample interview questions include: Have you witnessed this communication style in a work setting? Do you think older adults living in long-term care settings will find the interactions in the video realistic or relatable? Refer to **Appendix B** for the full interview.

Mood measure. For Phase II of the study, a seven-item mood measure was administered to participants before and after they viewed each video to assess current mood (Guzman-Velez et al., 2014). Participants rated how they "feel right now, at the present moment" by rating their experience on seven emotions (sadness, anger, disgust, fear, anxiety, peacefulness, and happiness) on a nine-point scale that ranges in intensity from "none" (0) to "extremely" (8). Refer to **Appendix C** for the full mood instrument.

A self-created, 17-item interview (i.e., Phase II Interview) containing closed and open-ended questions was used to gather qualitative data to supplement the quantitative data gathered from the mood measure. Sample interview questions include: How much did you enjoy the video? ["not at all" (0) to "extremely" (8)] What did you like about the video? What did you dislike about the video? Refer to **Appendix D** for the full interview.

The Affect Rating Scale (ARS), an affect measure developed from the Philadelphia Geriatric Center Positive and Negative Affect Rating Scales, was used as a model for behavioral observation (Lawton, Van Haitsma, & Klapper, 1996). The ARS consists of six types of affects, three positive (pleasure, interest, and contentment) and three negative examples (anger, anxiety/fear, and sadness). Affect types are described in terms of facial expressions, vocalizations, and body movements, among other behaviors. The affect descriptions from the ARS were combined two create two binary affect types (positive and negative). These affect descriptions were used by observers, who recorded the incidence of each affect type on a 15-second partial-interval recording system. Observers recorded whether a positive and/or negative affect was observed at any time during each 15-second interval for the duration of the videos (approximately six minutes in length). Additionally, observers recorded baseline affect for each participant before the introduction of each video (approximately two minutes in length). Refer to **Appendix E** for the affect recording instrument. Interobserver agreement (IOA) data was collected for at least half of the sessions, with the primary investigator serving as the second observer. Interval-by-interval analysis on 10 sessions revealed an agreement index of 95.4%.

Design

A quasi-experimental design was used for both phases, with individuals being exposed to one repeated-measures condition in phase I and two repeated-measures conditions in phase II (2 x 2 repeated-measures factorial design).

Phase I. This phase was conducted in one session per participant. Here, all individuals were exposed to both videos in one session. The presentation order of the video conditions was counterbalanced across participants.

Phase II. This phase was conducted in two sessions per participant, with the individual sessions comprising a video condition. All participants experienced both conditions, the presentation order of which was counterbalanced across participants.

Procedure

Phase I. This phase of the study required a sample of nursing staff members to view and provide opinions about both videos to ensure they represent typical staff-resident interactions during activities of daily living. Once consent was received, each video was presented to the individual nursing staff followed by the administration of the Phase I Interview, twice per session. Each session took approximately 30 minutes to complete.

Phase II. Once consent was received from a family member or legal guardian, but prior to beginning the experimental procedures, assent was obtained from the participant. If assent was given, phase II of the experiment began.

All data collection took place in participants' personal rooms, with the exception of one session, which took place in a secluded common area of the nursing home. The trained researcher first administered the BIMS to potential participants, whose inclusion was dependent on the score they obtained (i.e., included if score was ≤ 13).

Prior to watching each video, participants were administered the mood measure. During this time, a research assistant collected baseline affect data from behavioral observation using the binary ARS descriptions (~two minutes in length). The videos were displayed on a 15-inch laptop computer for all participants. During the presentation of the individual videos, a research assistant also collected affect

behavioral observation data (for the length of the videos), while the primary researcher occasionally collected inter-observer agreement data during this time (~30% of the time). The research assistant was introduced as an assistant and was instructed to reside in a discrete location that allowed an unobstructed view of the participants. Following the presentation of the individual videos, participants were administered the mood measure for a second time and the Phase II Interview.

A break of at least one day was implemented following the completion of the first experimental condition. The second experimental condition included the same procedures as the first condition, with the only differences being that participants were not re-administered the BIMS and that they watched the remaining video. Each session took approximately 30 minutes to complete.

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Results

Phase I

Interview. Qualitative analysis of responses to the staff interview indicated that both videos represent realistic interactions that occur between residents and staff members during personal care tasks. Refer to **Appendix B** for the list of questions asked of staff.

Staff were asked for their opinion on the verbal interactions, the nurses, and the older adult shown in the videos. All participants indicated disliking the interaction and the nurse's style in the ES video, while the opposite was observed in the N-ES video. With the most common dislikes for the ES video being the use of terms of endearment, the lack of choices provided, and the task-focused style of the nurse. A commonly reported like of the N-ES video was the resident-focused style of communication used by the nurse. For the ES video, the majority of participants reported that the resident appeared to be frustrated and resistant due to having the ability to express wants and needs but feeling unheard. For the N-ES video, the majority indicated that the resident appeared to be independent.

Next, participants were probed regarding their use of the interaction styles depicted in the videos and if they witnessed these communication styles in day-to-day work. All participants indicated having observed both communication styles in the past, with the observation of the ES style ranging from a few times to daily, and all indicating daily observation of the N-ES style. In comparison, all but one participant reported they did not use the ES style, while all reported using the N-ES style. The majority of participants indicated that they do not use terms of endearment, a task-focused style, or deny residents the ability choices. Comparable to the interaction style shown in the N-ES video, the majority indicated they provide choices and foster independence in their day-to-day work.

Participants were asked for opinions regarding the validity of the setting, interactions, and behaviors displayed by the older individual in the videos. All participants indicated that the setting, behaviors displayed by the older adult, and both interaction styles depicted in the videos were realistic. With regard to the interaction between the nursing assistant and resident, the majority of participants reported that the use of the ES style was especially realistic during busy work times. The general consensus regarding the older adult's behavior was that it is typical of a resident with dementia. The majority of individuals reported that the setting should not have included a kitchen.

Participants were asked to select the video that displayed a better example of how nursing staff should interact with residents who have a memory impairment. All participants indicated that the N-ES video was most appropriate, with the majority indicating that the communication style shown in this video promoted residents' rights and dignity. Participants were asked whether they believe older adults living in long-term care settings would find the interaction in the videos realistic or relatable. The majority (n=5) of individuals reported that the ES video would be relatable, compared to all participants reporting this for the N-ES video.

Phase II

Mood. A series of repeated-measures analyses of variance (ANOVA) were conducted to test whether there was a difference in negative and positive mood between video conditions. The mood measure was dichotomized into a positive and negative mood score. To adjust for the difference in number of items comprising the two mood types, an average score was created for the two mood types. Change scores were created from pre to post video-exposure for both positive and negative mood. As seen in **Figure 2**, these change scores were compared between video conditions. The ANOVA for positive mood change between pre and post-video measurements determined that there was no significant difference between the ES (M=.43, SD=.73) and N-ES (M=-.50, SD=1.04) (F (1,6) = 4.16, p=.09, η_p^2=.409). Refer to **Table 2** for means and standard deviations for the average scores. The ANOVA for negative mood change between pre and post-video measurements determined that there was no significant difference between ES (M=.23, SD=.45) and N-ES (M=.30, SD=.83) (F (1,6) = .02, p= .90, η_p^2=.003).
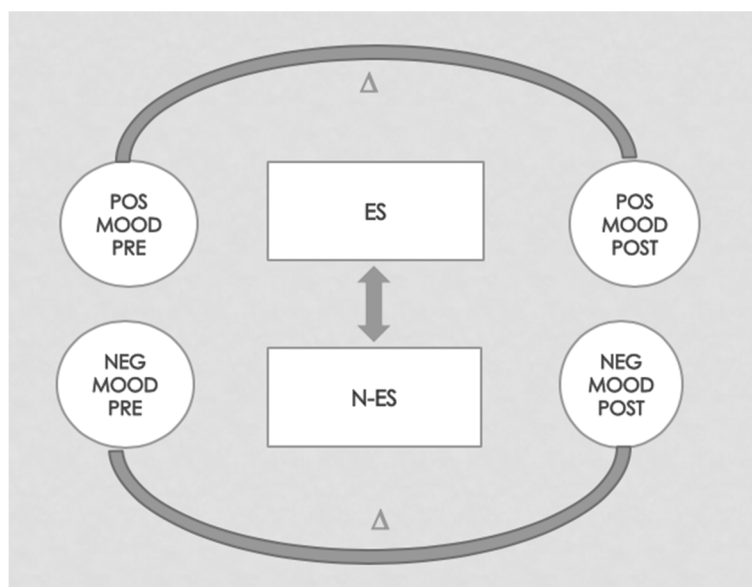
Figure 2. Positive and negative change scores compared between video conditions

To test whether there was a difference in post-video mood measurements between video conditions, a series of repeated-measures analyses of variance (ANOVA) with a Greenhouse-Geisser correction were conducted on positive and negative average scores. The ANOVA for positive mood post-video scores between video conditions determined that there was no significant difference between the ES

(M=5.64, SD=1.55) and N-ES (M=4.58, SD=.80) (F (1,6) = 2.80, p=15, η_p^2=.318). The ANOVA for

negative mood scores between video conditions determined that there was no significant difference

between the ES (M=.17, SD=.30) and N-ES (M=.40, SD=.62; F (1,6) = .50, p=.51, η_p^2=.075).

Table 2

Mood Averages

Variable	ES				N-ES			
	Positive Mood Mean (SD)	Positive Mood Δ	Negative Mood Mean (SD)	Negative Mood Δ	Positive Mood Mean (SD)	Positive Mood Δ	Negative Mood Mean (SD)	Negative Mood Δ
Pre	6.07 (1.54)	.43	.40 (.53)	.23	4.07 (.84)	-.50	.70 (1.01)	.30
Post	5.64 (1.55)		.17 (.30)		4.58 (80)		.40 (.62)	

Affect. Observations of baseline mood and mood expressed while watching the videos differed in

terms of length. To account for these differences in length, averages of positive and negative affect

observed were created and compared. As seen in **Table 3**, descriptive statistics indicate there was not

much affect observed in general or much difference between conditions for both positive and negative

affect. Visual analysis also shows that there was somewhat more affect observed during baseline than

while videos were being watched.

Table 3

Affect Behavioral Observation

Variable	ES		N-ES	
	Baseline	During	Baseline	During
Mean % of interval for positive affect	15.23%	6.04%	10.71%	8.24%
Mean % of interval for	9.72%	7.14%	14.30%	2.20%

negative
affect

_____

Interview. During the interview participants were asked a series of close and open-ended

questions, which were analyzed visually and with descriptive statistics. Participants were asked how

much they enjoyed the videos on a 9-point scale ranging from "not at all" (0) to "a great deal" (8), and

results indicated that they marginally enjoyed the ES (M=5.43) video more than the N-ES (M=4.90) video

(refer to **Table 4**). All residents reported something specific they enjoyed from the ES video, with some

examples being: the nurse was helpful, the nurse showed concern, and the nurse was caring. Only two

individuals reported not enjoying the way the nurse handled the tasks, while the majority reported not

disliking anything in the ES video. All but one participant reported something specific they enjoyed about

the N-ES video, with some examples being: the nurse is helpful, the nurse is good at her job, the style of

care. All participants indicated there was nothing they disliked about the interaction in the N-ES video

(one participant did not like the décor).

Participants were asked for their opinion on how the resident depicted in the videos felt. For the

ES video, some participants indicated that (n=3) resident felt negatively (e.g., helpless, frustrated,

unheard), while others (n=4) reported the resident felt positively (e.g., okay, independent, satisfied). For

the N-ES video, the majority (n=6) reported that the resident felt positively (e.g., good, happy, above

average). As seen in **Table 4**, participants responded identically for both video conditions on specific

questions regarding how the resident presumably felt, with the exception being that the majority felt the

resident in the ES video did not feel happy. In general, participants felt that the resident felt positively

(i.e., respected, cared for, not irritated/annoyed, not sad).

When asked for their opinions about the nurses in the videos, all participants reacted positively

(e.g., ES: she did a good job, okay, patient and kind; N-ES: she did a good job, helpful, professional) to

both videos. As seen in **Table 4**, participants responded identically for both video conditions regarding

specific questions about the nurse. In general, participants felt that the nurse did a good job (i.e., respectful, caring, good at her job, not controlling).

Table 4

Phase II Interview, questions # 1, 4b, 6, & 7

Variable	ES		N-ES	
	M (SD)	Mode	M (SD)	Mode
How much did you enjoy the video?	5.43 (1.9)		4.90 (1.70)	
Resident:				
Respected		Yes		Yes
Cared for		Yes		Yes
Irritated/annoyed		No		No
Sad		No		No
Happy		No		Yes
Nurse:				
Respectful		Yes		Yes
Caring		Yes		Yes
Good at her job		Yes		Yes
Controlling		No		No
If you were to need assistance with tasks such as combing your hair or getting dressed, would you want this nurse to assist you? (Yes/No)		Yes		Yes

Discussion

Contrary to previous research, the results of this study did not support the hypotheses that individuals with dementia would exhibit differences in mood, affect, or preferences between neutral and

elderspeak communication (Cunningham and Williams, 2007; Williams et al., 2008). In other words, elderspeak exposure did not appear to significantly affect participants' current mood in a positive or negative way. The results of this study were inconsistent with the findings of Ryan et al. (1991) and La Tourette and Meeks (2000) who found that participants who listened to scenarios depicting elderspeak had less favorable impressions of the speaker (i.e., nurse). In the current study, participants rated the nurses equally as being good at their job, respectful, caring, and not controlling in both video conditions. This is also true for perceptions of individuals receiving ES, who were rated as feeling equally respected, cared for, not irritated/annoyed, and not sad for both video conditions.

The results of this study were not consistent with the findings of Guzman-Velez et al. (2014), in which individuals with AD exhibited prolonged periods of negative mood following the viewing of mood-induction videos. Emotion measures in this study found minimal emotional expression and self-reported changes in mood related to video exposure. However, there is evidence that older adults with dementia express more facial expressions of pain than non-cognitively impaired controls (Kunz et al., 2007), so presumably their ability to outwardly express emotions should be similar that of individuals without cognitive impairment.

Future Directions and Limitations

Several limitations associated with this study regard the sample obtained. Notably, statistical power in establishing relationships was limited by the small sample size. Because the sample obtained was limited by homogeneity of the stage of dementia of the residents (mild to moderate), future research with larger samples should examine the effect of dementia stage on how ES is perceived. An additional limitation regarding the sample obtained for this study is that it was primarily Caucasian. It is possible that older adults of other ethnic backgrounds or from other geographic regions of the United States may respond differently to the use of ES. Future research should include more ethnically diverse samples to determine how individuals from other ethnic groups are affected by the use of ES.

Other potential limitations were related to the videos. For example, the videos were approximately 6 minutes each. Asking participants to rate their mood and perceptions of the video after this period of time may have weakened the accuracy of the measurements obtained given the severe short-term memory deficits associated with dementia. Introducing shorter periods of video exposure (e.g., 1-minute intervals) may provide more accurate measurements and a greater expression of current mood. While this possibility is not consistent with findings from Guzman-Velez et al. (2014), who found significant mood expression in individuals with AD even 30 minutes after exposure to mood induction videos, different designs should be further explored to rule out the possibility that the length of the video altered the results.

It was also found that there were few differences in reported mood and displayed affect between the two videos. While Guzman-Velez et al. (2014) found that videos were an effective means for inducing different mood states in adults with AD, the findings of the current study suggests that the videos depicting staff-resident interactions may not be sufficient to induce an emotional reaction. Therefore, other methods of emotion induction should be explored. For example, analogue scenarios could be arranged that involve having research assistants speak to individuals with dementia using elderspeak and neutral communication and then measuring reactions to each type of speech pattern. In addition, naturalistic observation methods could be used where resident emotional reactions are observed when interacting with staff that naturally use elderspeak versus those who naturally use more neutral forms of communication. Future research should also examine construct validity of the videos, or their capacity to induce mood, by examining the effects they have on individuals without cognitive impairment.

It is also unclear what specific construct the videos depicted. The videos were intended to depict elderspeak, but it was also clear that the videos included examples of other kinds of problematic speech that is not elderspeak (e.g., not offering the resident choices, rushing the resident through tasks). The literature includes a number of overlapping constructs that are subtly different from elderspeak such as "patronizing communication". Patronizing communication expands on the definition of elderspeak by

also including the psycholinguistic feature of topic management (Ryan et al., 1995). Topic management refers communication patterns that limit the receiver's ability to direct conversation by reinforcing certain topics, interrupting speech, and dismissing other generated topics (Ryan et al., 1995). The interactions depicted in the videos for this study may be more representative of the broader construct of "patronizing speech" as opposed to simply including elderspeak. This is evident in the ES video interactions when the nursing assistant withholds choices and dismisses suggestions generated by the resident, features that are not consistent with the conventional definition of ES, but are consistent with patronizing communication. This possibility was also evident in phase I of the study, in which many participants reported negative feelings towards this feature of the interaction, while there were fewer negative reactions to elements of elderspeak (e.g., high pitched voice, use of diminutives or nicknames). Therefore, it is important for future research to identify the type/s of communication that is/are depicted in the videos and to examine what features of the interaction correspond the effects elicited. This line of research could elucidate on the features of this communication style that have the greatest negative effects.

The scenarios depicted in the videos were meant to mimic a situation that involved a younger nursing staff providing care to an older adult, which was found to be realistic according to the results of phase I of the study. Because the caregiver in the scenario was portrayed in a professional setting, there may have been an inherent sense of the control in the scenarios. Therefore, participants may have expected the caregiver to speak in a more controlling fashion because it is part of their job to direct residents in completing tasks. This may have influenced how individuals perceived the nurses, possibly causing a lack differences between how the nurse was rated (i.e., controlling, good at her job). Future research should consider also examining experimental conditions with interactions in non-professional settings. It is possible that the speaker or caregiver using ES would be perceived less favorably (i.e., more controlling) in a non-professional situation, such as casually having a conversation at a table. This is consistent with previous findings that ES was judged to be more appropriate in institutional settings (Lombardi et al., 2014).

The training procedures for behavioral observation present another possible limitation. Training involved having the primary investigator and two research assistants take turns acting while the remaining two practiced behavioral observation of affect. Trainees were instructed to superficially express affect while watching a video clip. This methodology presents the possibility that observers were not trained sufficiently to notice nuanced expressions of emotion that may be more realistic. The floor effects observed could then be due to the inability for observers to identify subtle displays of affect. Future research using this type of procedure should train observers with more ecologically valid examples such as watching videos of older adults engaged in activities or interactions.

Similarly, the baseline observations obtained in this study may not have been representative of the baseline affect of participants. Baseline observations were conducted prior to presenting the video to participants while introductions and pre-video mood measurements were implemented. During this time, individuals may have expressed more or less emotion than they would normally. To circumvent this issue, future researchers should obtain more natural baseline observations of the individuals participating in everyday activities.

For both video conditions, a decreasing trend was observed in both positive and negative affect from baseline observation to observation during the videos. Compared to baseline affect expression, expression during the videos may have been limited due to participants' concentration on the videos. Participants were instructed to "pay attention as best they could" while watching the videos. In addition, it is possible that the social interaction that occurred prior to watching the videos, while the pre-mood measure was being implemented, elicited more outward expression than while they were watching the videos and not interacting with anyone.

Finally, while the instruments used in this study had been previously validated for individuals with various forms of dementia, it is possible that simpler instruments could provide quicker and more accurate measurement of immediate mood. For example, instead of using a Likert scale like the mood

measure used in this study, rating anchors that include images (e.g., that includes faces demonstrating different emotions) could be used.

Implications and Conclusions

The need for further research on the use ES is warranted given its relatively high prevalence in LTC facilities (Caporael, 1981); however, there are mixed results regarding whether this type of communication is beneficial or harmful when directed at individuals with dementia. Research indicates that some features of elderspeak may be beneficial in dementia communication (e.g. short sentences and simplified vocabulary may overcome working memory limitations; Kemper and Harden, 1989; Williams, 2006). Other research indicates that older adults who are exposed to language that projects incompetence and fosters dependence may lead to decreased self-esteem, depression, withdrawal, and increased dependence behaviors (Balsis & Carpenter, 2005; Ryan et al., 1995).

The current study did not find evidence for either of these hypotheses; however, the non-significant trends observed suggest that more meaningful results could be obtained with improvements and a larger sample. For example, a decreasing trend in positive mood was observed for the ES condition, while the opposite was observed for the N-ES condition. In addition, the majority of individuals reported that the older adult in the ES video was not happy, while the contrary was observed for the older adult in the N-ES video. The results of phase I indicate that the videos had content validity and were consistent with typical communication that occurs in LTC facilities. Therefore, future research should continue utilizing the video scenarios to further examine the use of ES with older adults dwelling in LTC facilities.

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Appendix A

Video Scripts

Elderspeak Script

In this scenario, the aid is talking to Mrs. Smith in a loud, high voice and continually cuts her off, almost like she is speaking for her and assuming she knows exactly what Mrs. Smith wants

Aid: Good afternoon honey, it's time to get up from your nap, here we go!

Aid does not give the resident time to wake up, get adjusted to the time, or ensure she is not too dizzy/weak before starting to get dressed and up for lunch

Mrs. Smith: Oh hi okay already?

Aid: Yep, let's get going we have a lot to do this afternoon and I have other residents to wake up. Let's see it's gotten pretty chilly out there since you laid down, what sweater should I put you in?

Mrs. Smith: Well I…

Aid interrupts and does not let resident finish sentence

Aid: Oh I love this pink one it is so cute you are going to look so pretty in it, I can't wait for everyone to see how beautiful you are!

Mrs. Smith: Oh I'm not that pretty.

Aid: Oh my goodness yes you are, you are the prettiest resident in the building they won't be able to stop staring.

Mrs. Smith: Well whatever you say.

Aid: Here you go sweet pea let's put your left arm in and then we'll sneak around and get your other arm in here, perfect it looks so good on you, you are the cutest little thing! Let's put this necklace on you too because I think the jewel will really bring out your sparkly blue eyes.

Mrs. Smith: No, no that's oh…

Aid interrupts

Aid: Oh alright I just assumed that'd be something you would like. Okay anyways now shoes, let's see what shoes do you have here. Oh okay I like these ones, these will make you look even more spiffed up.

Mrs. Smith: I like comfy slippers.

Aid: Here you go we will wear these boots to match the sweater you have on. Alright let's go use the potty and get your pearly whites brushed up so you have fresh breath before lunch.

Mrs. Smith: Okay, yeah.

Aid: Alright let's stand up and get moving here, we're gonna pivot right into your wheelchair in 1...2....3…

Aid puts gait belt onto resident and does not ask the resident if she is ready to stand

Mrs. Smith: Whoa, okay…

Aid: Alright let's get wheeling over to bathroom here and we'll use the potty and check your diaper to make sure you did not wet yourself.

Mrs. Smith: I did not wet…

Aid interrupts again

Aid: Well sometimes you do wet your diaper so I just want to make sure I don't need to change you and get your bottom wiped up.

Mrs. Smith: Okay. I'd like to brush my teeth first.

Aid: Alright let me get your toothbrush and toothpaste ready here for ya then, okay open on up and I'll start scrubbin for ya.

Mrs. Smith: …I can do it myself.

Aid: Oh alright are you sure you can do it? You spill a lot and make a mess when you do it by yourself.

Mrs. Smith: Yes I want to.

Aid: Okay I will let you do it then little lady

Aid starts combing hair while resident brushes teeth without asking, assuming she wants her hair combed

Mrs. Smith: Okay I am done.

Aid: Alright let's get you to the bathroom to use the potty.

Mrs. Smith: I do not have to go to the bathroom.

Aid: Okay sweetie, but we need to check your diaper to make sure it is not wet, I need to clean your bottom up.

Mrs. Smith: My pad is not wet.

Aid: Well alright then if you say so. Wash up your little fingers for lunch before we head down to eat.

Mrs. Smith: Okay good idea.

Aid: Alright here we go on down now.

Does not ask resident if she is ready to go

Mrs. Smith: Oh okay.

Aid: Okay beautiful, enjoy your yummy meal and have a good rest of your day, I love you! *Gives big hug and kiss on the cheek*

Non-Elderspeak Script

Aid knocks and enters room, and speaks to resident in a calm, clear voice

Aid: Good morning, Mrs. Smith! How was your nap?

Mrs. Smith: It was nice, still a little tired, how are you feeling?

Aid: I'm feeling good today, thank you for asking. Do you want a little more time to rest or are you ready to get up? It will be time for dinner soon.

Mrs. Smith: Oh is it that time already? I suppose I better get up now.

Aid: It's a little chilly in here. Would you like to put on a sweater?

Mrs. Smith: Yes, a sweater would be nice. Thank you.

Aid: Okay, I will grab a few sweaters for you to pick from while you make your way out of bed.

grabs 3 sweaters from closet and holds them up to Smith

Which one would you like to wear?

Mrs. Smith: I like the pink zip-up one. It's always nice and warm.

Aid: I like that one too, it looks perfect for spring and you look very nice in it. Would you like me to help you put it on?

Mrs. Smith: I can do most of it, but if you could reach behind me and hand me the other sleeve that would be helpful. My arms don't stretch as far as they used to!

Aid: Of course. *Helps put on sweater*. I see your blue necklace on your nightstand, would you like to put that on as well? It looks so nice on you and I notice that it matches the color of your eyes.

Mrs. Smith: No, I'd prefer not to wear that today.

Aid: No problem. Would you like me to grab you for shoes?

Mrs. Smith: I'll wear my slippers please.

Aid: *sets the slippers on the floor for the resident to slip into*

Do you feel like you are ready to get up?

Mrs. Smith: Oh I'm feeling just fine, I'm ready to get up.

Aid: Would you like to use your walker to walk down to the cafeteria?

Smith: Oh yes, thank you. I was hoping to get a walk in this afternoon.

Aid: I think that's a good idea to get some exercise. Although, we will still have to use the gait belt for safety.

Puts on gait belt and helps resident stand

 Let me know if the belt is too tight. Do you feel steady?

Mrs. Smith: Yes, I feel steady. Thank you.

Aid: You're welcome. Do you feel like you need to use the restroom before we leave or would you like me to grab you a new brief?

Mrs. Smith: I went to the bathroom before I laid down so I am fine.

Aid: Okay, let me know if you change your mind. Would you like to brush your teeth or brush your hair before going down to lunch?

Mrs. Smith: Oh, that would be great. Would you mind grabbing my toothbrush, toothpaste, and hairbrush as well?

Aid: Yes I can.

grabs hairbrush and toothbrush/toothpaste to lay out for Mrs. Smith

Would you like any help? I know your arthritis gives you trouble sometimes. Otherwise, I can make your bed as you get ready.

Mrs. Smith: I can do it myself, that would be nice if you made my bed up for me while you wait.

Mrs. Smith finishes getting ready as aid makes bed

Aid: Your hair looks great! Mrs. Smith make sure you wash your hands before we head down to lunch.

Mrs. Smith: Oh thank you for reminding me. Alright, I'm all ready to go! Thank you for your help.

Aid: *Aid touches Mrs. Smith's hand or shoulder*

Of course Mrs. Smith, you are always so kind. Enjoy your dinner and have a good rest of your day.

Exit room as aid helps ambulate

Appendix B

Phase I Interview

Interviewer:____Participant #:____ Date:_____Video: _____

1.   What is your opinion of the verbal interaction shown in the video? (prompt if necessary: what did you like or not like about the interaction).

2.   What was your opinion of the nurse shown in the video?

3.   Have you witnessed this type of communication style in a work setting?

a.   If you have witnessed this before, how often?

4.   Do you typically use this style of communication in your day-to-day work? (if the answer is "no", ask why not or what specific things they would not do/say).

5.   In your experience, do you think the interaction is realistic or typical of interactions that occur between residents and staff members during personal care tasks? (ask for specific feedback vs. a "yes-no" answer).

6.   What was your opinion of the older individual in the video?

7.   In your experience, do you think the behaviors displayed by the older individuals are realistic or typical of how residents behave during personal care tasks? (ask for specific feedback vs. a "yes-no" answer).

8.   Do you think the physical setting of the interaction (visually) is realistic? (ask for specific feedback vs. a "yes-no" answer).

9.   Do you think older adults living in long-term care settings will find the interaction in the video realistic or relatable? (prompt if necessary: "why or why not").

10.   Of the two videos you watched, which one was a better example of how nursing staff should interact with residents who have a memory impairment? (prompt if necessary: "tell me more about why you chose that video").

Appendix C

Mood Measure

Date: _____Participant Code: _____Video: _____Pre or Post

0	1	2	3	4	5	6	7	8
Not at all/				Somewhat/				Extremely/

Using the scale above, how much of each emotion are you feeling right now?

_____ happy, joyful, or amused

_____ sad, downhearted, or depressed

_____ fearful, scared, or afraid

_____ angry, irritated, or mad

_____ disgusted, grossed out, or repulsed

_____ anxious, tense, or nervous

_____ calm, serene, or relaxed

Appendix D

Phase II Interview

Date: _____Participant Code:_____Video:_____

1.   How much did you enjoy the video? ["not at all" (0) to "extremely" (8)]

2.   What did you like about the video?

3.   What did you dislike about the video?

4.   a) How do you think the patient in the video felt?

        b)

   •   Do you think the patient in the video felt: (yes/no)
   •   Respected:
   •   Cared for:
   •   Angry:
   •   Irritated/annoyed:
   •   Sad/depressed:
   •   Happy:

5.   What did you think of the nursing assistant in the video you just watched?

6.   Do you think the nurse in the video was: (yes/no)

   •   Respectful:
   •   Kind:
   •   Caring, affectionate, attentive:
   •   Competent:
   •   Controlling:

7.   If you were to need assistance with say, combing your hair or making your bed, would you want this nurse to assist you? (Yes/No)

Appendix E

Affect Recording Instrument

Date: _____Participant code: _____Pre-video observation ___Observation during video ___

Video watched: elderspeak   _____   non-elderspeak_____

Positive Affect - the participant shows overt signs of pleasure such as smiling, laughing, nodding, making positive statements about the video.

Please indicate whether the participant showed **positive affect** by placing a check mark in each interval in which affect was displayed. Interval length=15 seconds. Start the timer as soon as the video is turned on.
Negative Affect - the participant showing overt signs of anger, sadness, or anxiety. These overt signs may include: Clench teeth, grimace, shout, negative statements about the video, curse, berating, implied aggression (e.g., fist shaking), pursed lips, eyes narrowed, knit/brows lowered, furrowed brow, motoric restlessness, repeated or agitated motions, facial expression of fear or worry, sigh, tremor, tight facial muscles, calls repetitively, hand wringing, leg jiggling, eyes wide, cry, tears, moan, mouth turned down at corners, eyes/head down turned and face expressionless, wiping eyes, horse-shoe on forehead.

Please indicate whether the participant showed **negative affect** by marking each interval in which affect was displayed. Interval length=15 seconds

Positive

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	Total:

Negative

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	Total:

Please indicate how often the participant looked away from the video for more than 2 seconds by placing tallies below:

Total tallies: _____

Use the rating scale below to estimate how long the participant watched the video (circle the most appropriate item based on your observation):

0	1	2	3	4	5	6
< 1 min	About 1 min	About 2 min	About 3min	About 4min	About 5 min	>6 min

Appendix F

Phase I Informed Consent Form

Informed Consent for Participation in the Research Study

Purpose
I understand that the purpose of the research study is to get my opinions on the content of two videos displaying various communication styles.

Participants
I understand that I have been asked to participate because I am an employee at residential care facility.

Procedure
I understand that the researcher will ask me to watch two videos demonstrating different resident-caregiver communication styles. The videos will be followed by a brief interview in which the experimenter will ask me a series of open-ended questions regarding my opinions on communication styles shown in the videos. The total time commitment will be about approximately 30 minutes.

Risks
I understand that there are minimal risks associated with participation in this study. It is possible that I may become slightly uncomfortable while watching the videos and/or answering the questions. If this occurs I may choose not to answer a question or end my participation at any time with no negative consequences.

Benefits
I understand that no direct benefits will result from participation in this study. However, the results of this study may yield useful information about the relevance of the content of the videos, which may be used in future research.

Confidentiality
I understand that the findings of this study will be completely confidential. Confidentiality will be protected in that no identifying information will be included on any records collected during this study. All information collected during this study will be used for research purposes only and will only be accessible to the researcher and his research team. All information will be kept in a locked cabinet in the principle investigator's office and will be destroyed after three years.

Right to Refuse or Withdraw
I understand that participation is voluntary. I understand that I may withdraw them from the study at any time without penalty. I understand that I will not be penalized or jeopardize my relationship with Minnesota State University, Mankato as a result of withdrawal from the study.

Questions
I have been informed that if I have any questions, I am free to ask them. I understand that if I have any additional questions later, I may contact the office of the principal investigator, Jeffrey Buchanan, Ph.D. at (507) 389-5824 or the student investigator, Kenia Torres-Soto (320) 295-6849. If you have questions

about participants' rights and for research-related injuries, please contact the Administrator of the Institutional Review Board at (507) 389-1242.

Closing Statement
My signature below indicates that I have decided to participate in a research study and that I have read this form, understand it, and have received a copy of this consent form.

_____   _____

Signature of Participant   Date

_____   _____

Signature of Investigator   Date

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Appendix G

Phase II Participant Informed Consent Form

Informed Consent for Participation in the Research

Title: The title of this research study is, "Elderspeak: Preferences and the Effects on Mood of Older Adults with Dementia."

Purpose
The purpose of the research is to examine your opinions about communication and how different communication styles affect your mood.

Participants
I have been asked to participate because I have memory impairment.

Procedure
The experimenter will ask me several questions to assess my memory and language skills. These questions will take about 5 minutes.

The experimenter will ask me to watch two videos of interactions between a nurse and an older adult. The experimenter will present one of the videos on one day and the other video on a second day. Each day we will spend about 30 minutes with you. The videos will be viewed on the researcher's laptop computer in a private location at your place of residence (e.g., in a conference room). Meetings will be schedule at a time convenient for you.

Before and after you watch each video, the experimenter will ask you a series of questions about your mood. After viewing a video, the researcher will ask you about your opinions of the video.

An experimenter will observe and document your reactions both prior to watching each video and while watching each video. The study will end when both videos and sets of questions have been presented.

Risks
The risks associated with this study are no more than experienced in normal daily life. One potential risk is that you may not like the videos or the questions we ask you. If this occurs, we will immediately stop the video and/or stop asking you questions.

Benefits
Benefits for participants could include enjoyment of the videos. The results of this study may be useful for other older adults and caretakers.
Confidentiality
The findings of this study will be completely confidential. Confidentiality will be protected in that your name will not be included on any records. All information collected during this study will be used for research purposes only and will only be accessible to the principal investigator, Dr. Jeffrey Buchanan, and supervised members of Dr. Buchanan's research team in the Psychology Department at Minnesota State University, Mankato. All information will be kept in a locked cabinet in the principle investigator's office and destroyed after three years.

Right to Refuse or Withdraw
Participation in this study is voluntary. You may refuse to participate or you may end your participation at any time without repercussions by contacting the principal investigator at the phone number below or by

telling a staff member at your place of residence. The decision whether or not to participate will not affect your relationship with Minnesota State University, Mankato and refusal to participate will involve no penalty or loss of benefits.

Questions
If you have any questions, you are free to ask them. If you have any additional questions, you may contact the office of the principal investigator, Jeffery Buchanan, PhD at (507) 389-5824 or the student investigator, Kenia Torres-Soto (320) 295-6849. If you have questions about participants' rights and for research-related injuries, please contact the Administrator of the Institutional Review Board at (507) 389-1242.

Closing Statement
Writing your name below indicates that you have decided to participate in a research study and that you have read this form, understand it, and have received a copy of this consent form.

_____   _____
Your signature   Date

_____   _____
Signature of investigator   Date

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Appendix H

Phase II Guardian Informed Consent Form

Informed Consent for Participation in the Research
(Legal Guardian)

Title: The title of this research study is, "Identifying Music Preferences as Task Reinforcers in Persons with Cognitive Impairment."

Purpose
I understand that the purpose of the research is to examine preferences for music in persons with memory impairments and the effects that highly preferred music has on activity engagement.

Participants
I understand that the person for whom I serve as guardian has been asked to participate because they have been diagnosed with a condition that causes memory impairment.

Procedure
I understand the experimenter will ask the individual several questions to assess the individual's memory and language abilities. These questions will take about 5 minutes.

I understand that the experimenter will be asking the individual to listen to 14 different pieces of music (e.g., jazz, big band, classical, hymns, country western, lounge, and popular musical genres). Also, I understand that the experimenter will present the music to the individual and will record which music the individual prefers by measuring displays of positive mood (i.e., humming, singing, or tapping toes, or the participant verbally indications of pleasure). The procedure will end when each piece of music has been played. This procedure will be completed three times on three different days, with each assessment taking approximately 30 minutes.

Also, I understand that after preferred music has been identified, an additional 6 meetings with the individual will occur. During these meetings, the individual will be presented with either the most- or least-preferred music to see whether the individual will engage in an independent activity (for example, sorting objects or folding towels) for a longer period of time. The individual will be able to engage in the activity for as long as he/she likes, so the length of these meetings will vary; however, it is anticipated that each meeting will no longer than 30-45 minutes.

Risks
There are minimal risks associated with participation in this study, meaning that the risks are no more than those encountered in normal daily life. One potential risk is that a participant may experience agitation (e.g., frustration, confusion, anxiety) or fatigue during the presentation of music or activities. If this occurs, procedures will be terminated immediately and a staff member at the facility will be asked to assist in taking the participant back to his/her room.

Benefits
I understand that individuals will not be compensated for their participation. Benefits for participants could include enjoyment of the music and activities in terms of an increase in positive mood and being more engaged in activities. It is hoped that specific music is identified as highly preferred and that the music can be used by facility staff on a day-to-day basis. Results of this study may also prove beneficial in that music found to be highly preferred by participants in this study may be useful for other individuals.

Confidentiality

I understand that the findings of this study will be completely confidential. Confidentiality will be protected in that no identifying information will be included on any records collected during this study. Participants will be assigned an identification number that will be linked to the data collected during this study. All information will be kept in a locked cabinet in the principle investigator's office and destroyed after three years.

Right to Refuse or Withdraw

I understand participation in this study is voluntary. I understand that I may refuse to allow my family member to participate or withdraw them from the study at any time without repercussions. I understand that I will not be penalized or jeopardize my relationship with Minnesota State University as a result of withdrawal from the study. Furthermore, withdrawal from the study may occur if the participant becomes agitated or fatigued during any part of the study.

Questions

I have been informed that if I have any questions, I am free to ask them. I understand that if I have any additional questions later, I may contact the office of the principal investigator, Jeffery Buchanan, PhD at (507) 389-5824 or the IRB Administrator and Associate Vice President of Research and Dean of Graduate Studies, Dr. Barry Ries at (507) 389-2321.

Closing Statement

My signature below indicates that I have decided to allow my family member to participate in a research study and that I have read this form, understand it, and have received a copy of this consent form.

_____

Name of the person for whom I am providing consent (please print)

_____   _____

Signature of Legal Guardian   Date

_____   _____

Signature of Investigator   Date

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