2011

A Functional Analysis of Elderspeak Use by Certified Nursing Assistants in Caregiving Situations

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In Caregiving Situations

By
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A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree
Master of Arts
In
Clinical Psychology

Minnesota State University, Mankato
Mankato, Minnesota

May 2011

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This thesis has been examined and approved by the following members of the thesis committee.

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Abstract

The purpose of the current study was to assess the function of Elderspeak (i.e., a patronizing style of speech used with older adults) use by Certified Nursing Assistants (CNA's) in caregiving situations, with the intention of identifying factors or variables related to its use. This was done using a questionnaire intended to ascertain CNA's general evaluations of the likelihood and appropriateness of Elderspeak use in a variety of different contexts. The questionnaire included a total of 36 items that identified positive and negative factors pertaining to residents and caregivers. Consistent with existing models and previous research, it was hypothesized that negative factors would be more likely to evoke Elderspeak and that Elderspeak would be judged to be more appropriate in response to said negative factors. The results of the current study supported the proposed hypothesis, and found that negative factors were rated as more likely to evoke Elderspeak and led to higher ratings of appropriateness of Elderspeak.

Acknowledgements

A substantial amount of time and effort have gone into this work, which would not have been feasible without the benevolence of a number of others. First I would like to thank Dr. Jeff Buchanan and Dr. Barry Ries for their guidance in both the formulation and implementation of the current work, as well as in the academic arena. Their confidence in my abilities and potential allowed me to fully embrace the graduate school experience.

I would like to thank Chelsea Gloth, Susan Drevo, and Jonathan "Remington" Steele for their tireless support throughout the last two years. Without such great companions to keep me moving forward I would likely have fallen by the wayside well before the finish line.

Finally, I would like to thank my family, specifically my mom, dad, and sister, for their unconditional support throughout this experience called life. I would not be the man I am today without them, and every day they make me better.

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Chapter 1

Introduction

In the United States of America, the population is aging. In the year 2003, the number of Americans at or above the age of 65 was approximately 36 million and comprised 12% of the United States population (He, Sengupta, Velkoff, & DeBarros, 2005). These numbers are projected to increase significantly by the year 2030, with the number of older Americans (those at or above the age of 65) increasing to approximately 72 million, and accounting for 20% of the population (He et al., 2005). Unsurprisingly, as the American people are getting older, they are also living longer. In the year 1900 the average life expectancy was 47.3 years of age, and this has increased in the year 2000 to an average life expectancy of 76.9 years (He et al., 2005). One can expect that the average will continue to climb with the ever-advancing fields of medicine and technology.

Consistent with the aging United States population is the projected number of citizens that will require long-term care in the coming years. In the year 2000 there were 13 million children, adults, and older adults who required long-term care, with the majority of them being older adults (*The Future Supply*, 2003). By the year 2050, this number is projected to increase to 27 million, with older adults once again comprising the largest portion (*The Future Supply*, 2003). Implicit with the simple observation that larger numbers of older adults will be requiring long-term care in the future is that there will be consistent increases in the number of interactions between caregivers and those

receiving long-term care. Consistent with this assertion, a national survey of nursing homes in 2004 examined the extent of assistance residents required on various activities such as bathing, dressing, toileting, transferring and eating (Jones, Dwyer, Bercovitz, & Strahan, 2009). The 2004 overview of nursing homes reported that the majority of residents fell into the categories of "supervision", "limited assistance", "extensive assistance", or "total dependence" (bathing = 96.5%; dressing = 88.5%; toileting = 82.6%; transferring = 77.6%; and eating = 57.7%) in regards to the aforementioned daily living activities (Jones et al., 2009). It should be noted that the percentages above are the amalgamation of the individuals comprising all four categories. The results of the survey indicate that the majority of nursing home residents are interacting with staff on multiple occasions on a daily basis. With that in mind, greater attention and emphasis should understandably be given to interactions between staff and residents of long-term care facilities in order to ensure satisfactory outcomes for all parties.

Defining Elderspeak

A type of speech or communication that may inhibit satisfactory discourse in caregiving settings is Elderspeak, which is a simplified style of speech that is typically used when conversing with older adults (Whitbourne, 2008). This can be thought of as patronizing speech directed at older adults. A complex phenomenon, Elderspeak has a number of defining characteristics. It is characterized by simplified grammar, vocabulary, and sentence structure, as well as exaggerated intonation and vocal pitch and a noticeably slowed rate of speech or word delivery (Kemper, Finter-Urczyk, Ferrell, Harden, & Billington, 1998). Elderspeak is also characterized by features such as

repetition of words or phrases, personal terms of endearment (e.g.; sweetie, cutie-pie, short round), and collective pronoun usage (e.g.; saying "let's go to bed" when the resident is the only one going to bed) (Kemper & Harden, 1999). Elderspeak has been shown to be present in both caregiving institutions and long-term care facilities, with one study showing that almost 25 percent of sentences between caregivers and residents (22%) were categorized as having the characteristics of Elderspeak (Caporael, 1981). Present in caregiving settings, the phenomenon of Elderspeak should be considered in the context of communication as a construct.

Communication Accommodation Theory

Communication is a complex construct that encompasses a number of variables. These variables are things such as all the involved parties, their expectations or assumptions, observations, and all relevant situational and contextual variables (Ryan, Hummert, Boich, 1995). Ryan et al. (1995) describe the construct of communication as a process that allows all participants to negotiate their social roles as well as define their relationships with the other participants. A fundamental component of this dynamic and active interpersonal process is an active evaluation and adaptive process that all participants engage in known as Communication Accommodation Theory (CAT), which asserts that a speaker will change or alter their speech and nonverbal behavior based on the speaker's evaluation of the other participants (Giles, 2008; Ryan et al., 1995). Stated succinctly, CAT states that people alter how they talk and act contingent on who they are talking to. Ryan et al. (1995) assert that these situational and participant-based

modifications are intended to, as the theory's name suggests, accommodate the other participant(s) in the interests of achieving the best outcome possible from the discourse.

The active evaluation and adaptation inherent in CAT is especially relevant for caregivers in caregiving situations. With the increasing number of individuals requiring care in long-term care facilities, the sheer number of interactions caregivers will be participating in will likewise increase. In all of these interactions, it is integral for certified nursing assistants and other employees that interact with residents to maximize positive outcomes by properly accommodating the other participants. Williams and Warren (2009) provide an example of this process wherein staff modify or tailor their interactions with residents based on the general frameworks of personality (variables or features of each individual resident) and decline (the loss of self through Alzheimer's Disease, aging, or some other illness). Stated differently, the staff members accommodate each resident contingent on their evaluation of the resident's personality (if they have a good or bad personality) and the resident's decline (if they are cognitively intact) in an individualized manner (Williams & Warren, 2009). Accommodations for participants in discourse are not always beneficial however, and may hinder the communication process.

Communication Predicament of Aging

The adaptation and accommodation by the speaker based on their evaluations of the other participants shifts from beneficial to problematic when the speaker's accommodations are no longer based on accurate assessments or are excessive in nature. Stated differently, when a speaker's accommodations are based on inaccurate

assessments, on unfounded assumptions of the listener, or in excess of what is required, the accommodations may actually be detrimental to discourse (Ryan et al., 1995). Ryan and colleagues (1995) label this phenomenon the Communication Predicament of Aging Model (CPAM), which states that a speaker's communication style or accommodations for the listener are based on incorrect assumptions regarding things such as incompetence, loss of functioning, or deficits that the listener may or may not have. A hypothetical example may elucidate this model. For example, say a young woman is about to engage an older gentleman in a conversation. The woman, prior to speaking, becomes aware that the gentleman is significantly older in age and assumes that the gentleman has hearing deficits due to being significantly older. Based on this incorrect assumption, the woman alters her style of speech by talking significantly louder and more slowly than she would typically. In this hypothetical example the older gentleman has no hearing deficits, and as such finds the speech alterations to be detrimental to the conversation rather than beneficial. The phenomenon of Elderspeak is a manifestation of the CPAM, or inappropriate adjustments or accommodations made by speakers to older individuals.

The Issue of Elderspeak

As a construct, the phenomenon of Elderspeak is problematic on a number of levels. On an interpersonal level, the implementation of Elderspeak is found to be both condescending and disrespectful to the individual(s) receiving it, as well as being unwelcome and unwanted by listeners (Draper, 2005). A summary of research examining patronizing speech directed at older adults concluded that the majority of the

literature indicated that Elderspeak and patronizing speech in general should be avoided (Draper, 2005). Older individuals appeared to perceive this type of speech negatively (Draper, 2005). Consistent with these findings was a study conducted in 2005 by Balsis & Carpenter (2005) that examined two contextual variables on a third party observer's perceptions of a conversation utilizing Elderspeak. The variables of interest were the age of the speaker (i.e.; old versus young) and familial relationship of the speaker (i.e., related to the listener versus unrelated to the listener). Participants were directed to read two scripts silently which described a care-related dialogue between two individuals, with age of the speaker, relationship of the speaker to the target, and the type of speech (i.e.; Elderspeak versus non-Elderspeak) manipulated. The authors concluded that speakers who utilized Elderspeak were found to be less professional, less likeable, less respectful, more patronizing, and less patient with the listener, and that the listeners were found to be less competent, less capable, and having poorer memory and communication skills (Balsis & Carpenter, 2005).

Similar results were found in a nursing home setting as well (Ryan, Bourhis, & Knops, 1991). Ryan et al. utilized a script format as well to convey a conversation between two individuals (i.e.; a nurse and a nursing home resident) with manipulations of the type of speech utilized by the nurse (i.e.; patronizing versus neutral) and the cognitive state of the resident (i.e.; forgetful versus alert). It was reported that nurses in the patronizing speech condition were viewed more negatively than nurses in the neutral speech condition regarding a number of variables (e.g.; intelligence, friendliness, helpfulness, & competence) (Ryan et al., 1991).

On a personal level, individuals who are the recipients of Elderspeak may be thought of more negatively (Tourette & Meeks, 2000). Tourette & Meeks (2000) conducted a study examining older women's perceptions of Elderspeak. In the study, participants viewed two vignettes (i.e.; non-patronizing speech versus patronizing speech) of an interaction between a nurse and an elderly woman. Among other significant results was the finding that community elders found the recipients of Elderspeak to be less competent than those who received non-patronizing speech (Tourette & Meeks, 2000). The research seems clear in that both individuals who utilize Elderspeak and recipients of it are perceived more negatively than those who utilize a more neutral type of speech.

There also appear to be practical issues related to the use of Elderspeak (Kemper & Harden, 1999; Herman & Williams, 2009). Kemper & Harden (1999) examined individual components of Elderspeak on the process of giving directions for navigating a map, and found that several aspects resulted in communication issues. Specifically, exaggerated pitch and slowed rates of speaking led to more reported communication problems in the direction-giving process (Kemper & Harden, 1999). Elderspeak was also found to lead to practical issues in caregiving settings (Herman & Williams 2009). Herman and Williams examined resistiveness to care (RTC) by old adults with dementia in response to the type of communication used by staff, recording and analyzing a total of 80 caregiver-resident interactions. The researchers found the RTC behavior was significantly more likely to follow the use of Elderspeak as opposed to either neutral speech or silence by the caregiver. Specifically, there was a probability of .55 for RTC

behavior to occur if preceded by Elderspeak, as opposed to a probability of only .26 for RTC behavior if preceded by neutral speech or silence by the caregiver (Herman & Williams 2009). To summarize, it is clear that Elderspeak as a construct is problematic on interpersonal, personal, and practical levels.

Purpose of the Current Study

Though a sizable amount of research has been conducted that examines perceptions of Elderspeak and its impact in a variety of settings, little research has been conducted examining specific variables related to its use in long-term care facilities where intimate activities of daily living are being completed by caregivers that elderly residents may not know very well. Furthermore, these caregivers may be very different from residents in terms of age, gender, and ethnicity. Therefore, because Elderspeak can have many negative outcomes, it is important to better understand when caregivers are more prone to engage in Elderspeak in order to develop ways to prevent or minimize its use. In other words, it is important to empirically determine which "old age cues" are more likely to evoke Elderspeak from caregivers.

Theoretical writings discuss a variety of cues that may be related to the use of Elderspeak (Ryan et al., 1995; Whitbourne, 2008) such as physical features and appearance of the potential recipient (e.g., age, type of dress, facial features), or social roles (e.g., if the individual is employed or retired), but little research has examined this empirically in a caregiving setting. Stepping back momentarily from caregiving settings, Kemper and colleagues (1994) investigated if spouses would utilize a type of speech with characteristics of Elderspeak when engaging in discourse with individuals suspected of

having Alzheimer's disease, and found that spouses simplified and altered their language to accommodate the individuals with suspected Alzheimer's disease. These results touch on one potential variable/cue, specifically the cognitive state of the potential recipient, but other variables have yet to be identified. Additional research has found that certain situational variables (e.g., a hospital versus community setting) and individual traits of potential recipients (e.g., despondent versus non-despondent recipient) were related to the use of patronizing speech (Hummert, Shaner, Garstka, & Henry, 1998).

The purpose of the current study was to assess the function of Elderspeak use by Certified Nursing Assistants (CNA's) in caregiving situations, with the intention of identifying factors or variables related to its use. Said another way, this study was designed to further understand when and why caregivers use Elderspeak. Certified Nursing Assistants were the population of interest for the current study for two primary reasons, the first being their prominent role in regards to daily interactions (e.g., bathing, dressing, toileting, transferring, eating) with residents of long-term care facilities. Also, there has not been a substantial amount of research published examining the perspectives or views of CNAs on the phenomenon of Elderspeak. Conceptual models have touched on potential general variables (Ryan et al., 1995; Whitbourne, 2008) such as physical characteristics, social roles, and situational contexts. Empirical research has examined this issue as well (Hummert et al., 1998; Kemper et al., 1994), with cognitive ability, situational variables, and individual traits of recipients found to be relevant. That being said, the aim of the current research was to expand on the existing literature while focusing specifically on caregiver-resident interactions in long-term care facilities. This

was done using a questionnaire intended to ascertain CNA's general evaluations of the likelihood and appropriateness of Elderspeak use when considering both positive and negative resident and caregiver factors. In regards to residents, an example of a positive factor would be the ability to ambulate independently, whereas a negative factor would be the inability to do so. Regarding caregiver factors, a positive factor would be having a certain amount of familiarity or rapport with a resident, whereas a negative factor would be being unfamiliar with a resident. Two additional caregiver factors of interest for the current research were caregiver age and level of education. A component of the current research was aimed at examining the effects of these caregiver factors on the ratings of both likelihood and appropriateness. Despite being more exploratory in nature as opposed to being hypothesis driven, it was speculated that younger caregivers would potentially be more prone to increased evaluations of appropriateness as well as likelihood. With that in mind, the primary focus of the current study was on the comparison of positive and negative factors. Consistent with existing conceptual models and previous literature, it was hypothesized that the negative factors would be evaluated as significantly more likely to evoke Elderspeak and that Elderspeak would be judged to be more appropriate in response to these negative factors as compared to the positive factors.

Chapter II

Method

Participants

Participants were 134 CNA's employed at long-term care facilities located in the Midwestern United States. When evaluating the following demographic information, it should be noted that not all participants elected to complete the demographics component of the questionnaire. Of the participants who responded to demographic items, the majority were women (women = 119, men = 3), ranged in age from 19 to 71 years of age (M = 37.35, SD = 15.65), and were primarily from the Midwest (Midwest = 108, other = 13). The majority of participants reported their ethnicity as "white" (n = 90), followed by "African American" (n = 4), "Hispanic/Latino" (n = 3), "Asian" (n = 2), and "Asian/Caucasian" (n = 1). Concerning reported education, the majority of participants reported their highest level of education attained being high school (n = 84), followed by associate's degree (n = 16), and bachelor's degree or beyond (n = 8). Eleven of the participants responded to the item pertaining to education with "other" (n = 11). Participants reported being employed either full time (n = 70) or part time (n = 51), with the range of months employed as a CNA being two months to 516 months (M = 119.42, SD = 123.71). Finally, participants reported their primary populations and units worked with. Participants reported working with general populations (n = 94), special needs populations (n = 12), or both (n = 8). Primary units were skilled nursing (n = 81), assisted living (n = 17), memory care (n = 13) or a combination of units (n = 9).

Settings

Data was collected both on-site (n = 127) and electronically (n =7). The researchers visited and collected data at nine long-term care facilities in the Midwest. Three of the facilities were categorized as nursing homes with bed counts ranging from 40 to 202 (M = 142), three were categorized as assisted living with available units ranging from 48 to 57 (M = 53.67), and three facilities had both a nursing home and assisted living component. The nursing home bed count for the multi-purpose facilities ranged from 50 to 134 (M = 94.33), and the available units for assisted living ranged from 30 to 41 (M = 35.50). As mentioned previously a small amount of data was collected electronically through an internet-based iteration of the questionnaire from a company that owns and operates a total of 30 long-term care facilities. Of these facilities, eleven include assisted living and five include memory or Alzheimer's units. It should be noted that the researchers collected the majority of data on-site.

Materials

The questionnaire utilized for the current study was rationally constructed over the course of several months by a team of researchers, the final version of which can be seen in Appendix A, and was comprised of three primary components. The first component was a demographic section that included ten questions intended to identify characteristics of the participants (e.g., gender and age). The second component was a 36-item section intended to examine different variables/cues for ratings of both likelihood and appropriateness of Elderspeak use (e.g., If the resident appears angry; If the resident has severe memory problems). To elaborate, participants evaluated and rated each of the

items twice on a scale of one to four (one being not at all likely/appropriate, four being extremely likely/appropriate) based on their perceptions both of the likelihood of Elderspeak being used, and the appropriateness of Elderspeak being used, for that variable/cue. The final component was a four item open-ended section intended to provide participants an opportunity to elaborate or elucidate on areas or variables the previous section didn't take into account.

As mentioned previously, the second section of the questionnaire was rationally constructed and was comprised of 36 items pertaining to variables/cues potentially related to Elderspeak use (e.g., the presence of significant memory problems or being fully cognizant). From these 36 items, seven subscales were rationally derived. Five subscales were concerned with characteristics of the resident, namely "physical" (e.g., If the resident is below the age of 70), "behavioral" (e.g., If the resident is being uncooperative), "emotional" (e.g., If the resident appears happy), "cognitive" (e.g., If the resident has full mental capacity), and "historical" (e.g., If the resident is well-educated). Two subscales were concerned with characteristics of the caregiver and their interactions with the resident, namely "situational" (e.g., If the CNA is not busy) and "relationship" (e.g., If the CNA knows the resident's name). A comprehensive list of subscales and relevant items can be seen below in Appendix B.

The majority of items included in the second section of the questionnaire were also conceptualized as either positive or negative factors/cues. For example, the item pertaining to a resident's inability to ambulate independently was considered to be a negative factor/cue, whereas the item pertaining to a resident having full mental capacity

was considered to be a positive factor/cue. A total of 34 items were evaluated as being either a positive or negative factor/cue, with 17 items included on each of the scales. The remaining two items, namely those related to the gender of the hypothetical resident, were not included on either scale.

Procedure

Data collection sessions were conducted on-site (with the exception of data collected electronically) at the aforementioned long-term care facilities at the conclusion of all-staff or CNA specific meetings. Facilities were first contacted to inquire about their willingness to participate in the study. After receiving both permission to collect data, and information pertaining to when and where staff meetings would occur, the researchers visited the facilities. Each data collection session was conducted immediately upon conclusion of the staff meeting, with willing CNA's remaining to participate. Participants were provided instructions regarding the questionnaire and items therein (i.e., the first page of the questionnaire), and subsequently completed the questionnaire. It should be noted that a brief audio clip demonstrating Elderspeak was included in the instructions in order to clarify what Elderspeak entails. Participation was deemed complete whenever the participant elected to be done and returned the questionnaire to the researchers. All demographic and scaled items participants failed to complete were classified as missing data (i.e., recorded as "999" in the data set). The purpose of this was to permit the researchers to utilize the successfully completed items in the relevant analyses while excluding those that were not completed from the analyses. This was done to ensure accurate analysis and interpretation of the data. An examination of the

data revealed a completion rate of 92.5%, with only a small number of participants (n = 10) failing to meet the completion criteria of at least 80% of items completed. As such, non-completion was not a significant issue for the current study.

Chapter III

Results

Analyses focused on four primary components, namely a descriptive analysis of individual items, an examination of the relationship of two participant variables (i.e., age, level of education) on evaluations of the rationally derived subscales, a comparative analysis of amalgamated positive and negative factors/cues, and lastly an evaluation of the open-ended questions for recurring themes or trends. In regards to the first analysis, a descriptive analysis was conducted to examine the average ratings of both likelihood and appropriateness for each of the individual items. For the second component fourteen one-way between subjects ANOVAs were conducted that categorized participants by age to compare the effects on subscale ratings of likelihood and appropriateness for each individual subscale. Fourteen independent-measures t-tests were also conducted to compare individual subscale ratings by those who pursued higher education to those who did not. The third component compared the positive and negative factors/cues for overall differences through a repeated-measures t-test analysis. Finally, a qualitative evaluation of answers to open-ended questions was completed.

Descriptive Analysis

An examination of the means for all individual items revealed variability in regards to ratings for both likelihood and appropriateness. Focusing first on the likelihood scale, the five items or variables/cues rated as most likely to evoke Elderspeak were “If the resident is female” ($M = 2.634$, $SD = .896$), “If the CNA interacts with the

resident on a regular basis" (*M* = 2.623, *SD* = 1.068), "If the resident appears happy" (*M* = 2.592, *SD* = .912), "If the resident appears sad/depressed" (*M* = 2.547, *SD* = .912), and "If the resident has severe memory problems" (*M* = 2.523, *SD* = .999). In contrast, the five items or variables/cues rated as least likely were "If there are family members present" (*M* = 1.640, *SD* = .839), "If a supervisor is present" (*M* = 1.656, *SD* = .882), "If the resident previously held what most people consider a prestigious job" (*M* = 1.705, *SD* = .785), "If the resident is well educated" (*M* = 1.723, *SD* = .845), and "If the resident is male" (*M* = 1.761, *SD* = .776).

Shifting next to evaluations of appropriateness, the five items rated as most appropriate were "If the CNA interacts with the resident on a regular basis" (*M* = 2.250, *SD* = 1.138), "If the resident requires assistance to ambulate" (*M* = 2.119, *SD* = 2.927), "If the resident appears sad/depressed" (*M* = 2.056, *SD* = .949), "If the resident appears happy" (*M* = 2.039, *SD* = .951), and "If the CNA-resident interaction is during a hands-on caregiving situation" (*M* = 1.953, *SD* = .987). Comparatively, the five items rated as least appropriate were "If the CNA has never interacted with the resident previously" (*M* = 1.492, *SD* = .759), "If there are family members present" (*M* = 1.508, *SD* = .837), "If the resident is well educated" (*M* = 1.558, *SD* = .809), "If the resident is below the age of 70" (*M* = 1.579, *SD* = .741), and "If the resident previously held what most people consider a prestigious job" (*M* = 1.591, *SD* = .819). These items are organized into the two tables below, Tables 1 and 2. A complete list of item means can be found in Appendix C, with questionnaire items being listed from least to most likely/appropriate.

Table 1

Highest Rated Individual Items

Most Likely	**Most Appropriate**
1) Resident is female (M = 2.634)	1) Regular interactions (M = 2.250)
2) Regular interactions (M = 2.623)	2) Requires assistance to ambulate (M = 2.119)
3) Resident appears happy (M = 2.592)	3) Resident appears sad/depressed (M = 2.056)
4) Resident appears sad/depressed (M = 2.547)	4) Resident appears happy (M = 2.039)
5) Severe memory problems (M = 2.523)	5) During hands-on caregiving situation (M = 1.953)

Table 2

Lowest Rated Individual Items

Least Likely	**Least Appropriate**
1) Family members present (M = 1.640)	1) No previous interactions (M = 1.492)
2) Supervisor present (M = 1.656)	2) Family members present (M = 1.508)
3) Previously held prestigious job (M = 1.705)	3) Resident is well educated (M = 1.558)
4) Resident is well educated (M = 1.723)	4) Below the age of 70 (M = 1.579)
5) Resident is male (M = 1.761)	5) Previously held prestigious job (M = 1.591)

Comparative Analyses

Fourteen one-way between subjects Analysis of Variance (ANOVA) procedures were conducted to compare the effect of age on ratings of likelihood and appropriateness for the seven rationally derived subscales. Stated differently, all seven subscales were examined individually with two separate ANOVA procedures. For logistical and analysis purposes, the variable of age was split into quartiles (i.e., quartile one = 19-23 years, quartile two = 24-31 years, quartile three = 33-51 years, & quartile four = 52-71 years). Although these age groups were somewhat arbitrary in nature, the rationale was to ensure equivalent sample sizes for the four categories. For ratings of likelihood, there was only a

significant effect of age on the relationship subscale; $F(3, 103) = 3.479$, $p = .019$. This can be seen below in Table 3.

Table 3

Analysis of Variance for Relationship Subscale (Likelihood)

ANOVA

Relationship_Subscale_Likelihood_Average

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	4.626	3	1.542	3.479	.019
Within Groups	45.656	103	.443		
Total	50.282	106			

A post hoc comparison using the Tukey HSD test indicated that the mean rating of likelihood for quartile one ($M = 2.524$, $SD = .559$) was significantly higher than quartile four ($M = 2.017$, $SD = .621$) in regards to ratings of likelihood on the relationship subscale. This difference indicates that participants between the ages of 19 and 23 perceived Elderspeak use as significantly more likely to occur as compared to participants between the ages of 52 to 71 when considering factors/cues related to the relationship between the CNA and the resident. For ratings of appropriateness, there only appeared to be a significant effect of age on the historical subscale; $F(3, 104) = 2.786$, $p = .044$. This can be seen below in Table 4.

Table 4

Analysis of Variance for Historical Subscale (Appropriateness)

ANOVA

Historical_Subscale_Appropriate_Average

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	3.171	3	1.057	2.786	.044
Within Groups	39.457	104	.379		
Total	42.629	107			

A post hoc comparison using the Tukey HSD test indicated that the mean rating of appropriateness for quartile one (M = 1.801, SD = .608) was significantly higher than quartile four (M = 1.333, SD = .631) in regards to ratings of appropriateness on the historical subscale. This difference indicates that participants between the ages of 19 and 23 perceived Elderspeak use as significantly more appropriate as compared to participants between the ages of 52 to 71 when considering historical factors/cues.

In order to compare the effect of education on ratings of likelihood and appropriateness for the seven subscales, fourteen independent-measures t-test procedures were conducted. Like the previous analyses, all seven subscales were examined individually with two separate procedures. For the purposes of these analyses, participants were identified and placed into one of two categories (i.e., did not pursue higher education, pursued higher education). Due to the shift from ANOVAs to the independent-measures t-test, a Bonferroni correction was implemented and a new critical significance value was calculated (α = .0256) in order to reduce the potential for Type I error. For likelihood, there were significant differences in ratings of the physical

subscale between those that did not pursue higher education (M = 2.051, SD = .568) and those that did pursue higher education (M = 2.409, SD = .517); $t(106) = -2.645$, $p = .009$. Likewise, there were significant differences in ratings of the cognitive subscale between those that did not pursue higher education (M = 2.199, SD = .660) and those that did (M = 2.551, SD = .528); $t(110) = -2.367$, $p = .020$. These results indicate that individuals who pursued higher education perceived Elderspeak use to be significantly more likely than individuals who did not pursue higher education when considering physical and cognitive factors/cues related to the hypothetical resident. For appropriateness, there were no significant differences in ratings on any of the subscales.

The final statistical analyses conducted for the current study were two repeated-measures t-test procedures intended to compare ratings of positive factors/cues and negative factors/cues in regards to likelihood of use and appropriateness of use, respectively. For likelihood ratings, there was a significant difference in scores for positive factors/cues (M = 2.001, SD = .588) and negative factors/cues (M = 2.261, SD = .657); $t(96) = -6.465$, $p < .001$. For appropriateness ratings, there was also a significant difference in scores for positive factors/cues (M = 1.645, SD = .622) and negative factors/cues (M = 1.731, SD = .680); $t(92) = -2.125$, $p = .036$. These differences indicate that participants rated the negative factors/cues as both significantly more likely, and appropriate, as compared to the positive factors/cues. Stated differently, participants evaluated the negative factors/cues as being more likely to evoke Elderspeak, and as making Elderspeak more appropriate to use. These results can be seen in Table five below.

Table 5

Repeated-Measures Analysis Comparing Positive and Negative Cues

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Positive_Likely_Super - Negative_Likely_Super	-.26016	.39632	.04024	-.34003	-.18028	-6.465	96	.000
Pair 2	Positive_Appropriate_Super - Neg_Sup_App	-.08539	.38753	.04019	-.16520	-.00558	-2.125	92	.036

Qualitative Analysis

The final component of the questionnaire was comprised of four open-ended questions intended to allow participants to elaborate on areas or variables previous sections omitted. A visual analysis of responses by participants revealed a number of recurring themes for each of the questions. For item 37, which asks if there are other situations where this kind of language is more, or less, appropriate, the three most often recurring responses were that this kind of language is never acceptable (n = 26), appropriateness varies depending on the resident (n = 23), and it may be more appropriate contingent on resident deficits (n = 14). For item 38, which asks if there are situations or times outside of work where one has heard or are more likely to hear this kind of language, the three most often recurring responses were when working or interacting with

children (n = 37), when interacting with family or friends (n = 31), and no they have never heard it (n = 17). For item 39, which asks if one can recall having ever used this type of language, and what was the cue to do so, the three most often recurring responses were yes (n = 43), characteristics of the resident were cues (n = 21), and no (n = 19). The final question, item 40, asked about the motivation for becoming a CNA. The three most often recurring responses for this question were a desire to help others (n = 55), enjoyment of the population (n = 31), and enjoyment of the job (n = 14). A comprehensive list of themes can be seen in Appendix D.

Chapter IV

Discussion

Descriptive Analyses

Results from the descriptive analysis of individual items for likelihood of Elderspeak use were relatively consistent with previous theoretical writings and research (Hummert et al., 1998; Kemper et al., 1994; Ryan et al., 1995; Whitbourne, 2008), which posited that resident characteristics (e.g., physical characteristics, cognitive state, individual traits) and situational variables or social roles are relevant cues for eliciting Elderspeak. From the current study, the five most highly rated items on the likelihood scale, which can be seen above in Table one, were factors/cues pertaining to characteristics of the resident (i.e., If the resident is female; If the resident appears happy; If the resident appears sad/depressed; If the resident has severe memory problems and the relationship of the CNA to the resident.

In contrast, the five lowest rated items on the likelihood scale, which can be seen above in Table two, were factors/cues pertaining to situational variables (i.e., If there are family members present; If a supervisor is present) and characteristics of the resident (i.e., If the resident previously held what would be considered a prestigious job; If the resident is well educated; If the resident is male). Expanding on these results, it appears that there is no single factor/cue or type of factor/cue that would account for increases or decreases in the likelihood of Elderspeak being used, but that it is an amalgamation of

resident characteristics (e.g., physical, emotional, cognitive, historical) and interpersonal variables (e.g., relationship, situational). That being said, it is interesting to note that the items pertaining to gender (i.e., If the resident is female; If the resident is male) were ranked rated as most likely and fifth least likely, respectively. Also fascinating to note are that several of the lowest rated items seem to allude to an awareness of the negative perceptions of Elderspeak, specifically examining the ratings for items pertaining to superiors, individuals with relations to the resident, or even achievements/accomplishments the resident may have attained. While the likelihood of Elderspeak being used does appear to be contingent on a number of variables, these results indicate that significant predictors could very well be the gender of the resident, accomplishments of the resident, or who is present during the interactions.

An examination of ratings of appropriateness revealed a certain level of consistency with the ratings of likelihood in regards to the variety of types of cues. From the current study, the five most highly rated items on the appropriateness scale, which can be seen above in Table one, were factors/cues pertaining to relationship of the CNA to the resident, characteristics of the resident (i.e., If the resident requires assistance to ambulate; If the resident appears sad/depressed; If the resident appears happy) as well as situational variables (i.e., If the interaction is during a hands-on caregiving situation). In comparison, the five lowest rated items on the appropriateness scale, which can be seen above in Table two, were factors/cues pertaining to relationship of the CNA to the resident, situational variables, (i.e., If family members are present) and characteristics of the resident (i.e., If the resident is well educated; If the resident is below the age of 70; If

the resident previously held what would be considered a prestigious job). Consistent with the ratings of likelihood, there does not appear to be a single variable or type of cue that consistently makes Elderspeak use more or less appropriate from the perspective of CNA's. It should be noted, however, that the two items pertaining to the relationship of the CNA to the resident were considered most appropriate (i.e., If the CNA has regular interactions with the resident) and least appropriate (i.e., If the CNA has had no previous interactions with the resident). This would seem to indicate that a significant predictor of appropriateness could be the relationship of the CNA to the resident, and that Elderspeak is perhaps intended to function as a means for displaying affection and familiarity.

Comparison of CNA Age

Comparisons examining the seven subscales on likelihood of Elderspeak use indicated a significant difference in regards to the relationship subscale. Through post hoc analyses, the significant difference in ratings of the relationship subscale was revealed to be between the first and fourth quartiles. Specifically, the post hoc analysis revealed that participants in the first quartile rated Elderspeak as significantly more likely than participants in the fourth quartile. Stated differently, those individuals between the ages of 19 to 23 rated Elderspeak as being significantly more likely to occur than those individuals between the ages of 52 to 71 when considering factors/cues related to the relationship of the CNA to the resident. What this reveals, indirectly, is that the age of the CNA may be a factor to consider when predicting the likelihood of Elderspeak use under certain circumstances, keeping in mind that this prediction would be made only when considering relationship factors such as familiarity and amount of contact with a

resident. In essence there may be a kind of interaction effect between CNA age and relationship between the CNA and the resident. It is plausible that younger CNAs evaluate the use of Elderspeak as more or less likely contingent upon the relationship of the CNA to the resident, whereas the evaluations of likelihood are not influenced significantly by the relationship of the CNA to the resident, for older CNAs.

Examination of subscales on appropriateness of Elderspeak use indicated a significant difference in regards to the historical subscale. Through post hoc analyses, the significant difference in ratings of the historical subscale items was revealed to once again be between the first and fourth quartiles. Specifically, the post hoc analysis revealed that participants in the first quartile rated Elderspeak as significantly more appropriate than participants in the fourth quartile. In other words, individuals between the ages of 19 to 23 rated Elderspeak as being significantly more appropriate than those individuals between the ages of 52 to 71 when considering factors/cues related to historical characteristics of the resident. Consistent with the previous ANOVA procedures, this seems to indicate that the age of the CNA may also be a factor when evaluating the perceived appropriateness of Elderspeak use in relation to resident historical factors. In essence there appears to be an interaction of sorts between the age of the CNA and evaluations of historical factors/cues. It is possible, then, that younger CNAs perceive the use of Elderspeak as more or less appropriate contingent upon historical factors such as the resident's previous occupation, whereas these same historical factors influence the perceived appropriateness less significantly for older

CNAs. Taken together, these results indicate that there may be an age component relevant to perceptions of Elderspeak and its use.

Comparison of Education

The independent-measures t-test procedures examining the subscales on likelihood of Elderspeak use indicated significant differences for several of the subscales, specifically physical and cognitive subscales. Regarding the subscale pertaining to physical factors/cues, analysis reveals that those who did not pursue higher education rated the use of Elderspeak as significantly less likely than those who did pursue higher education. Regarding the subscale pertaining to cognitive factors/cues, analysis reveals that those who did not pursue higher education rated the use of Elderspeak as significantly less likely than those who did pursue higher education. These differences may reflect a discrepancy in evaluations of the salience of physical and cognitive factors/cues between those who pursue higher education and those who don't, which should be explored in later research. The independent-measures t-test procedures examining the subscales on appropriateness of Elderspeak use did not result in significant differences between education categories.

Comparison of Positive and Negative Cues

A repeated-measures t-test procedure was conducted to examine evaluations of positive factors/cues in comparison to negative factors/cues in regards to both the likelihood and appropriateness of Elderspeak use. Results of the first analysis, which examined ratings of likelihood, revealed significant differences between the positive factors/cues and negative factors/cues. Specifically, negative factors/cues were found to

be significantly more likely than positive factors/cues. This is consistent with previous literature and the current hypothesis, which posited that negative factors (e.g., being unable to ambulate independently or have significant memory issues) would be evaluated as significantly more likely to evoke Elderspeak than positive factors. A significant difference was also found between positive and negative factors/cues in regards to ratings of appropriateness, and was consistent with the differences in ratings of likelihood. Negative factors/cues were found to be significantly more appropriate than positive factors/cues, which indicate a perception that perceived or real deficits sufficiently alter the context so that Elderspeak is considered appropriate.

Qualitative Analysis

The examination of the qualitative responses by participants appears to reflect the idea that the likelihood of Elderspeak use is contingent on a number of variables. Participant responses to several of the questions were indicative of this, stating in various ways that the appropriateness of Elderspeak use depends on the resident or resident deficits and that factors from the residents were cues to use this type of language. A total of 43 respondents reported using Elderspeak at some point, with common elaborations on its use being concerned with characteristics or features of the resident (n = 21) or familiarity with the resident (n = 15). These responses, taken in conjunction with the results of the descriptive analyses, indicate that Elderspeak may be thought of as more or less appropriate depending on not only admittedly complex evaluations of the resident, but also on the closeness of the relationship the CNA has with the resident.

Also relevant were responses to the item regarding other situations where Elderspeak or a type of speech equivalent to Elderspeak had been experienced. A substantial number of respondents reported it commonly being used with children (n = 37), which would indicate an understanding of the potential for infantilizing when utilizing such a style of speech. This alludes to a certain level of awareness in regards to both the aforementioned complexity of the issue of Elderspeak, and reinforces the assertion that the primary use of this type of speech is to accommodate discrepancies or perceived discrepancies that would hinder discourse.

Implications

Implications from the current study are three-fold. First, much like the construct of Elderspeak itself is complex, evaluations of both its likelihood and appropriateness appear to be comprised of an array of factors/cues. Increased likelihood of Elderspeak use, for example, seems to be related to physical characteristics of the resident (i.e., If the resident is female), emotional characteristics of the resident (i.e., If the resident is happy, sad, or depressed), cognitive characteristics of the resident (i.e., If the resident has severe memory problems), as well as interpersonal variables such at the CNA's relationship with the resident (i.e., If the CNA has regular interactions with the resident). The implication of this is that individuals who interact with residents regularly should actively attempt to increase their awareness on how they perceive residents on a number of variables. Several variables that should be consciously evaluated, as indicated by the results of the current study, are gender, emotional state, cognitive abilities, and how frequently they interact with the resident.

Second, the factors/cues pertaining to the use of Elderspeak may not be solely concerned with the resident. In fact, characteristics of the CNA or other individuals interacting with the resident such as age or level of education may be pertinent in some circumstances as well. This implies that individuals who regularly interact with residents should not only increase their awareness of perceptions of others, but should actively take into account their own personal characteristics as they may be exerting a certain amount of influence. Finally, consistent with the current hypothesis, negative factors/cues appear to increase the likelihood and perceived appropriateness of Elderspeak use. This lends credence to the CAT and CPAM models, in that perceived deficits may predict the use of Elderspeak, which we can then infer is meant to accommodate said deficits. Related to a previous point, the implication of this is that individuals should increase their awareness regarding how they evaluate others. For example, perhaps actively attending to residents' strengths as opposed to solely deficits or perceived deficits would be beneficial.

Limitations

A number of limitations should be considered when evaluating the results of the current study. Regarding the participants, there appeared to be an underrepresentation of men (n = 3) in comparison to women (n = 119) for those participants who elected to complete the demographic information. Evaluating those participants who responded to the item pertaining to gender, approximately 2.5% were male, as compared to 97.5% that were female. The proportion of male CNAs included in the current study was below the proportion reported in the 2009 national survey of nursing assistants, which reported that approximately 8.02% were male as compared to 91.98% being female (Squillace et al.,

2009). Though no analyses were conducted examining responses of men and women independently, a sample closer in proportion to the overall population in regards to gender would have been preferable.

In regards to the data collection process, a number of issues arose that should be noted. Due to logistical and scheduling issues there were varying sample sizes recruited from various facilities. This was partly due to differing sizes of facilities, as well as availability of CNA's to participate during scheduled data collection sessions. At a number of facilities potential participants actively considered participating, but elected not to due to time constraints. Also, as noted previously, data was collected electronically from participants employed at one setting through an online iteration of the questionnaire. There were significant issues with both implementation and response rate however, with fewer than ten respondents completing the questionnaire.

Related to previous limitations, there were several issues pertaining to the questionnaire itself. An issue that arose on several occasions was the lack of completion of all items included in the questionnaire. The authors posit this lack of completion may have been due in part to the length of the questionnaire, the language utilized, or the nature of the questionnaire itself. Regarding the first, considering the workload of potential participants, the questionnaire may have required further streamlining to minimize the amount of time required to fully complete the questionnaire. Regarding the second, though the research team who constructed the questionnaire attempted to incorporate a more basic vocabulary, there may still have been some confusion in regards to the language utilized (e.g., "ability to ambulate"). Future iterations of the

questionnaire should continue to simplify the included language in the hopes that more participants will comprehend and successfully answer more of the questionnaire items. Regarding the third, though the questionnaire was constructed in such a way as to reflect a neutral stance in regards to Elderspeak, participants may have altered or omitted ratings to particular items in response to negative perceptions or evaluations. Whatever the cause or motivation, participant failure to complete all items may indicate a potential for bias, which should be noted. That being said, considering the exploratory nature of the current study, participants who failed to respond to items of interest for particular analyses were simply excluded on a case-by-case basis and were included for those analyses in which responses were included.

Another limitation of the questionnaire was regarding the item pertaining to place of origin. The current iteration of the questionnaire allows participants to report their place of origin, but does not inquire as to the length of time spent in the Midwest. Future iterations should elaborate on this item and inquire as to the length of time spent living in the Midwest, as acculturation may very well be a factor. A final limitation that should be considered is the lack of psychometric support for the questionnaire. Due to being rationally derived, the items were not empirically or statistically derived such as through the use of factor analysis. As such, analyses utilizing the subscales should take this into consideration.

Future Research

Future research should further explore the results unearthed by the current study. One area of further exploration would be to attain and compare a more balanced sample

of women and men, as an examination of gender differences in regards to ratings of likelihood and appropriateness of Elderspeak use would be pertinent. Related to this, future research should broaden the participant pool beyond the Midwest to other areas of the United States. Much like the proposed exploration of gender differences, a comparison of locations to look for regional differences or variability would also be prudent and useful for attaining a more comprehensive understanding of the phenomenon of Elderspeak. Considering the results of the current study indicate that negative factors/cues were rated as both significantly more likely and appropriate in regards to Elderspeak use, future research may wish to examine these types of factors/cues exclusively. Limiting the variables of interest in this way would not only streamline the research process from a practical perspective, but would also allow for a more careful examination of factors/cues most directly related to the use of Elderspeak. That being said, considering the complex nature of the phenomenon of Elderspeak, taking a more comprehensive stance in regards to examining all potential factors may be the more appropriate strategy. Finally, an examination of Elderspeak in a more direct and empirical manner, taking into account certain factors found to be important from the current study, should be conducted. Future research should directly observe resident-staff interactions in order to link actual Elderspeak use with these relevant factors. This would not provide information more objective and potentially definitive than self-report from caregivers.

Chapter V

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Appendix A

Purpose:

The purpose of this survey is to get your general opinions about a certain type of speech/language that is present in a variety of care giving and social settings.

The speech/language of interest is noted as incorporating shorter sentences with a simplified vocabulary (*e.g., using the word potty instead of bathroom*), personal terms of endearment (*e.g., calling someone sweetie or good girl*), and collective pronoun usage (*e.g., asking if we are ready for our bath instead of asking if you are ready for your bath*).

Several examples of this type of speech/language would be:

"Well hello honey! How are we doing today? Did we sleep well? I sure hope so, because we have a BIG day ahead of us!"

"How was your lunch sweetie? Was it yummy? Let's go use the potty before we go to the day room."

This speech/language is also noted for several key characteristics:

- exaggerated intonation (*e.g., talking with an excited tone*)
- elevated pitch/volume (*e.g., talking more loudly than is usual for a typical conversation*)
- repetition of words/phrases (*e.g., repeatedly asking if someone is hungry*)
- a slowed rate of delivery (*e.g., talking more slowly than usual*)

We have found from various discussions that this is a type of speech that is used in a number of situations. When asked about its appropriateness, people typically say that it depends on the situation. This is what we want to know from you – if there are circumstances when this type of speech is more/less likely to happen and are there circumstances when this type of speech is more/less acceptable or appropriate. We are interested in examining factors that determine the appropriateness of a situation. We want to know your general opinions based on situations you have observed being a nursing assistant.

In other words, when you complete the survey, we are not asking you if *you* use this type of speech or not. This is why the instructions ask you to rate items based on what you feel "*a* (*typical) nursing assistant*" would do (as opposed to what *you* would do). Below are more specific instructions about how to complete this form – please feel free to ask the researchers questions if you have any.

Instructions:

- First, we would like to ask how likely you think it would be for the "typical" nursing assistant to use this type of speech/language in a variety of different

situations. For each of the following situations, rate from 1 (not at all likely) to 4 (extremely likely).
    - *For example, item #1 asks how likely you think it would be for the typical nursing assistant to use this type of speech/language with a female resident.*
- Second, we want to ask you how appropriate it would be for a nursing assistant to use this type of speech/language in a variety of different situations. For each of the following situations, rate from 1 (not at all appropriate) to 4 (extremely appropriate).
    - *For example, item #1 asks how appropriate you think it would be for a nursing assistant to use this type of speech/language with a female resident.*

Demographic Information:

1. Gender: M F
2. Age: _____
3. Originally from the Midwest: Y N (if no, please specify region: _____)
4. Level of Education (Circle One):

   High School Associates Degree Bachelor's Degree or beyond Other
5. Ethnicity: _____
6. How long have you worked as a nursing assistant _____years _____ months
7. Official job title: _____
8. Employment Type (Check One) _____Full Time_____Part Time
9. Primary Unit (Circle One):

   Assisted Living Memory Care Skilled Nursing
10. Primary population interacted with:

    General ____ Special Needs ____ (if so, please specify) _____

LIKELIHOOD RATINGS:
1 = not at all likely
2 = somewhat likely
3 = likely
4 = extremely likely

APPROPRIATENESS RATINGS:
1 = not at all appropriate
2 = somewhat appropriate
3 = appropriate
4 = extremely appropriate

Please answer all the questions below. Please circle a number from 1-4 for *Likely* and 1-4 for *Appropriate*.

	Likely	Appropriate
1. If the resident is female?	1 2 3 4	1 2 3 4
2. If the resident appears angry?	1 2 3 4	1 2 3 4
3. If the resident is below the age of 70?	1 2 3 4	1 2 3 4
4. If CNA knows the resident's name?	1 2 3 4	1 2 3 4
5. If the resident has full mental capacity (i.e., does not have memory problems)?	1 2 3 4	1 2 3 4
6. If the resident is well educated? (i.e., completed college or has an advanced degree)?	1 2 3 4	1 2 3 4
7. If there are coworkers present?	1 2 3 4	1 2 3 4
8. If the resident has visual impairment?	1 2 3 4	1 2 3 4
9. If the CNA has never interacted with the resident previously?	1 2 3 4	1 2 3 4
10. If the resident is hearing impaired?	1 2 3 4	1 2 3 4
11. If they are around other residents?	1 2 3 4	1 2 3 4
12. If the resident appears happy?	1 2 3 4	1 2 3 4
13. If the resident has severe memory problems?	1 2 3 4	1 2 3 4
14. If the resident is male?	1 2 3 4	1 2 3 4
15. If the resident appears disoriented/confused?	1 2 3 4	1 2 3 4

16. If the resident is being uncooperative?	1 2 3 4	1 2 3 4
	Likely	Appropriate
18. If the resident is able to ambulate on their own? (i.e., able to walk around on their own)	1 2 3 4	1 2 3 4
19. If the resident is alone?	1 2 3 4	1 2 3 4
20. If the resident has little education (i.e., did not finish high school)?	1 2 3 4	1 2 3 4
21. If the resident has mild memory problems?	1 2 3 4	1 2 3 4
22. If the resident previously held what most people consider a prestigious job such as physician, lawyer, teacher, etc…?	1 2 3 4	1 2 3 4
23. If the CNA cannot recall the resident's name?	1 2 3 4	1 2 3 4
24. If the resident is above the age of 70?	1 2 3 4	1 2 3 4
25. If the resident has good vision?	1 2 3 4	1 2 3 4
26. If the CNA interacts with the resident infrequently (i.e., once a week or less)?	1 2 3 4	1 2 3 4
27. If the CNA-resident interaction is during a hands-on caregiving situation (e.g., bathing, dressing, toileting)?	1 2 3 4	1 2 3 4
28. If the resident requires assistance to ambulate?	1 2 3 4	1 2 3 4
29. If there are family members present?	1 2 3 4	1 2 3 4
30. If the resident is not hearing impaired?	1 2 3 4	1 2 3 4
31. If the resident appears sad/depressed?	1 2 3 4	1 2 3 4
32. If a supervisor is present?	1 2 3 4	1 2 3 4
33. If the resident is cooperating?	1 2 3 4	1 2 3 4

34. If the CNA has a heavy workload?	1 2 3 4	1 2 3 4
	Likely	Appropriate
35. If the CNA interacts with the resident on a regular basis (i.e., almost daily)	1 2 3 4	1 2 3 4
36. If the CNA-resident interaction is not during a hands-on caregiving situation (e.g., chatting in the hallway, during meals, during activities)?	1 2 3 4	1 2 3 4

37. Are there other situations where this kind of language is more, or less, appropriate? (Please provide examples)

_____

_____

_____

38. Are there situations or times **outside of work** where you have heard or are more likely to hear this kind of language? (For example, when interacting with friends or family members in a social context)

_____

_____

_____

39. Can you recall having ever used this type of language, and what was the cue to do so? (For example, did you hear other CNA's or the residents using it?)

_____

_____

_____

40. What was your motivation for becoming a CNA? (In other words, why did you choose to become a CNA?)

_____

_____

_____

41. Would you like to have more training on this issue? Yes_____ No_____

Appendix B

Physical Factor Subscale:

- Item 1 (If the resident is female?)
- Item 3 (If the resident is below the age of 70?)
- Item 8 (If the resident has visual impairment?)
- Item 10 (If the resident is hearing impaired?)
- Item 14 (If the resident is male?)
- Item 18 (If the resident is able to ambulate on their own?)
- Item 24 (If the resident is above the age of 70?)
- Item 25 (If the resident has good vision?)
- Item 28 (If the resident requires assistance to ambulate?)
- Item 30 (If the resident is not hearing impaired?)

Emotional Factor Subscale:

- Item 2 (If the resident appears angry?)
- Item 12 (If the resident appears happy?)
- Item 15 (If the resident appears disoriented/confused?)
- Item 31 (If the resident appears sad/depressed?)

Cognitive Factor Subscale:

- Item 5 (If the resident has full mental capacity?)
- Item 13 (If the resident has severe memory problems?)
- Item 21 (If the resident has mild memory problems?)

Historical Factor Subscale:

- Item 6 (If the resident is well educated?)
- Item 20 (If the resident has little education?)
- Item 22 (If the resident previously held what most people consider a prestigious job such as physician, lawyer, teacher, etc…?)

Behavioral Factor Subscale:

- Item 16 (If the resident is being uncooperative?)
- Item 33 (If the resident is cooperating?)

Situational Factor Subscale:

- Item 7 (If there are coworkers present?)
- Item 11 (If they are around other residents?)
- Item 17 (If the CNA is not busy?)
- Item 19 (If the resident is alone?)
- Item 27 (If the CNA-resident interaction is during a hands-on caregiving situation?)
- Item 29 (If there are family members present?)
- Item 32 (If a supervisor is present?)
- Item 34 (If the CNA has a heavy workload?)
- Item 36 (If the CNA-resident interaction is not during a hands-on caregiving situation?)

Relationship Subscale:

- Item 4 (If the CNA knows the resident's name?)
- Item 9 (If the CNA has never interacted with the resident previously?)
- Item 23 (If the CNA cannot recall the resident's name?)
- Item 26 (If the CNA interacts with the resident infrequently?)
- Item 35 (If the CNA interacts with the resident on a regular basis?)

Appendix C

Likelihood (Item)	Likelihood (Mean)	Likelihood (SD)	Appropriate (Item)	Appropriate (Mean)	Appropriate (SD)
If there are family members present	1.6406	.83933	If the CNA has never interacted with the resident previously	1.4919	.75972
If a supervisor is present	1.6563	.88235	If there are family members present	1.5079	.83662
If the resident previously held what most people consider a prestigious job	1.7054	.78465	If the resident is well educated	1.5581	.80919
If the resident is well educated	1.7231	.84464	If the resident is below the age of 70	1.5794	.74138
If the resident is male	1.7615	.77564	If the resident previously held what most people consider a prestigious job	1.5906	.81993
If the resident is below the age of 70	1.8923	.83755	If they are around other residents	1.5984	.84759
If the resident has full mental capacity	1.8984	.93775	If the resident has full mental capacity	1.6000	.86136
If they are around other residents	1.9685	.89031	If a supervisor is present	1.6349	.88185
If the CNA has never interacted with the resident previously	1.9690	1.08928	If there are coworkers present	1.6434	.88210
If the resident is able to ambulate on their own	1.9769	.83958	If the resident is male	1.6589	.83382
If the resident has good vision	1.9845	.82901	If the CNA is not busy	1.6639	.82932
If the CNA interacts with the resident infrequently	1.9921	.91648	If the CNA interacts with the resident infrequently	1.6825	.80648
If there are coworkers present	1.9924	.91564	If the resident appears angry	1.6855	.86829
If the resident is hearing impaired	2.0000	.92342	If the resident has visual impairment	1.7008	.81955
If the CNA has a heavy workload (	2.0078	.89175	If the CNA has a heavy workload	1.7063	.83011
If the resident is not hearing impaired	2.0079	.79494	If the resident is hearing impaired	1.7120	.88733
If the CNA-resident interaction is not during a hands-on caregiving situation	2.0820	.94990	If the resident is not hearing impaired	1.7154	.85431
If the CNA is not busy	2.1200	.89443	If the resident has good vision	1.7302	.82377
If the resident appears angry	2.1374	.96686	If the CNA cannot recall the resident's name	1.7344	.89164

Likelihood (Item)	Likelihood (Mean)	Likelihood (SD)	Appropriate (Item)	Appropriate (Mean)	Appropriate (SD)
If the resident has visual impairment	2.1395	.89917	If the resident is able to ambulate on their own	1.7364	.87963
If the resident is cooperating	2.1797	.91732	If the CNA-resident interaction is not during a hands-on caregiving situation	1.7541	.87492
If the resident has little education	2.2126	.88757	If the resident has little education	1.7559	.87029
If the resident is being uncooperative	2.2424	.98942	If the resident is alone	1.7600	.84624
If the CNA cannot recall the resident's name	2.2946	1.04883	If the resident is female	1.7615	.81463
If the resident requires assistance to ambulate	2.3307	.95165	If the resident is beign uncooperative	1.7907	.92428
If the resident is above the age of 70	2.3437	.98363	If the resident is above the age of 70	1.8560	.90433
If the resident has mild memory problems	2.3643	.80949	If the resident is cooperating	1.8571	.91838
If the resident is alone	2.4048	.93105	If the resident has mild memory problems	1.8583	.87943
If the CNA knows the residen'ts name	2.4308	1.06340	If the resident has severe memory problems	1.8583	.98177
If the CNA-resident interaction is during a hands-on caregiving situation	2.4567	.99008	If the CNA knows the resident's name	1.9213	1.00480
If the resident appears disoriented/confused	2.5000	.93386	If the resident appears disoriented/confused	1.9457	.98671
If the resident has severe memory problems	2.5227	.99974	If the CNA-resident interaction is during a hands-on caregiving situation	1.9524	.98677
If the resident appears sad/depressed	2.5469	.91238	If the resident appears happy	2.0391	.95078
If the resident appears happy	2.5923	.91241	If the resident appears sad/depressed	2.0556	.94915
If the CNA interacts with the resident on a regular basis	2.6299	1.06758	If the resident requires assistance to ambulate	2.1190	2.92741
If the resident is female	2.6336	.89620	If the CNA interacts with the resident on a regular basis	2.2500	1.13786

Appendix D

Item 37: (6 themes)

Question: "*Are there other situations where this kind of language is more, or less, appropriate? (Please provide Examples)"*

- Issues pertaining to resident behavior = 13 responses (9.7%)
- Resident deficits = 14 responses (10.4%)
- Relationship to or familiar with resident = 13 responses (9.7%)
- Variable depending on resident = 23 responses (17.2%)
- Age appropriate = 4 responses (2.9%)
- Never Acceptable = 26 responses (19.4%)

Item 38 (7 themes)

Question: *"Are there situations or times outside of work where you have heard or are more likely to hear this kind of language? (For example, when interacting with friends or family members in a social context)"*

- Working or interacting with children = 37 responses (27.6%)
- Interacting with family or friends = 31 responses (23.1%)
- At a store, restaurant, or church = 11 responses (8.2%)
- In personal settings = 2 responses (1.5%)
- To animals or pets = 1 responses (0.7%)
- Yes, I have heard it = 9 responses (6.7%)
- No, have never heard it = 17 responses (12.7%)

Item 39 (7 themes)

Question: *"Can you recall having ever used this type of language, and what was the cue to do so? (For example, did you hear other CNA's or the resident using it?)"*

- Yes = 43 responses (32.1%)
- No = 19 responses (14.2%)
- Sometimes/Occasionally/Somewhat = 16 responses (11.9%)
- Characteristics of the resident = 21 responses (15.7%)
- Familiarity with the resident = 15 responses (11.2%)
- Instigated by the resident = 4 responses (2.9%)
- Cued by other CNA's = 7 responses (5.2%)

Item 40 (7 themes)

Question: "What was your motivation for becoming a CNA? (In other words, why did you choose to become a CNA?)"

- Altruism/Benevolence/Helping = 55 responses (41.0%)
- Enjoys the population = 31 responses (23.1%)
- Logistical/Practical/Motivation = 7 responses (5.2%)
- Enjoys the job = 14 responses (10.4%)
- Sociable personality = 6 responses (4.5%)
- Runs in the family = 7 responses (5.2%)
- Hopes for help in future = 1 response (0.7%)

Appendix E

Informed Consent for Participation in the Research Study

Purpose
I understand that the purpose of the research study is to get my general opinions about a type of communication style that sometimes occurs when interacting with older adults in caregiving and social settings.

Participants
I understand that I have been asked to participate because I am employed as a professional caregiver for older adults.

Procedure
I understand the experimenter will ask me to complete a questionnaire to assess my general opinions about a type of communication style sometimes used with older adults. Before beginning the study, the experimenter will provide instructions on how to complete the questionnaire. I will then complete the questionnaire, which is 40 questions in length. The total time commitment will be about 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 answering the questions. If this occurs I may end my participation at any time with no negative consequences.

Benefits
I understand that I will not be compensated for my participation. The results of this study may yield useful information about how to improve social interactions with older adults living in long-term care facilities.

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 will be kept in a locked cabinet in the Minnesota State University Psychology Doctoral and Clinical Center (University Square room 113).

Right to Refuse or Withdraw
I understand that I may refuse to participate or withdraw from the study at any time without penalty.

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, Nate Lombardi (507) 208-5983, or if you have questions or concerns about the treatment of human subjects, please contact IRB Administrator and Dean of Graduate Studies, Dr. Anne Blackhurst at (507) 389-2321.

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