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**Project Title:** Resistiveness in Dementia: Nurse Communication in Acute Care

## I. Project aims.

Aim 1. Identify elderspeak communication components and frequency of use during interactions between nursing staff and patients with dementia in acute care.

Aim 2. Determine the association between nursing staff elderspeak communication and resistiveness to care by patients with dementia during dyadic interactions in acute care.

## II. Theoretical/conceptual framework.

The phenomenon of elderspeak in dementia care covers two conceptual domains: elderspeak communication and resistiveness to care (RTC). To understand the outcome RTC, the Rejection of Care Conceptual Framework (RCCF) describes how RTC occurs in caregiving encounters.<sup>1</sup> In the RCCF, *intrinsic factors* of persons living with dementia (PLWD) interact with *needs and environmental resources* to produce a *behavior state*. This baseline but varying *behavior state* interacts with *antecedents* (i.e. *triggers*) and *individual preferences* to produce the *behavioral response*. Elderspeak is the antecedent that produces the behavioral response, RTC. The Communication Predicament of Aging Model (CPAM) explains why nurses enact elderspeak when caring for older adults. The CPAM describes a negative spiraling feedback loop occurring when younger speakers view older adults—typically non-consciously—as incompetent and dependent, and through these stereotyped expectations modify their communication towards older adults. This in turn constrains communication and reinforces stereotypes which contributes to poor self-esteem and dependency.<sup>2</sup> In PLWD, RTC will be triggered when elderspeak is enacted by nurses. Therefore, reducing elderspeak communication by nurses is a feasible strategy to preventing RTC in PLWD.

## III. Methods, procedures, and sampling.

A cross-sectional approach using convenience sampling was used to address both aims. Nursing staff-PLWD dyads were recruited from one Midwestern hospital. Point-of-care nursing staff were audio-recorded during care interactions with PLWD. Behaviors of the PLWD were observed during each recording session and rated real-time as resistive versus cooperative as defined by the RTC Scale using a Livescribe™ 3 Smartpen.<sup>3,4</sup> Audio-recordings were analyzed using psycholinguistic coding for elderspeak communication to determine the frequency and characteristics of elderspeak (Aim 1). RTC was analyzed in relation to the corresponding frequency of elderspeak communication using a mixed-effects model (Aim 2).

Nursing staff and patient with dementia dyads were recruited, audio-recorded, and observed from October 2019 to March 2020. Eligible nursing staff were direct care providers, at least 18 years old, and fluent English speakers. Eligible patients with dementia had an ICD-9 or ICD-10 dementia diagnosis, report of RTC since admission or prescribed a psychotropic medication during hospitalization, had at least mild dementia on the FAST scale<sup>5</sup>, and were fluent in English. Data collection was halted in March of 2020 because of research restrictions due to the COVID-19 pandemic. The final sample included: 60 dyads, in 88 observations, made up of 16 patients with dementia and 53 nursing staff (n=27 nurses and n=26 nursing assistants). During the data collection period, an additional 48 nurses were recruited but were unable to be paired with a consented patient with dementia for

observation and audio-recording. Demographic characteristics did not differ ( $p < .05$ ) between the group of recorded and non-recorded nursing staff.

An evidenced-based coding scheme for elderspeak was used to identify elderspeak in the audio-recorded care encounters. The coding scheme includes five mutually exclusive communication states (Nurse: Elderspeak, Nurse: Neutral, Silence, Nurse: Staff to Staff, and Patient). Elderspeak is categorized by three non-mutually exclusive major themes (Semantics, Discourse, and Paralinguistic) along with an additional 11 elderspeak subcategories. Coding was completed using Audacity and Excel software by two research assistants unaware of the resistiveness to care outcome findings. Interrater and intrarater reliability for the research assistants was established at ICC greater than .90 for all dimensions of communication.

#### **IV. Summary of findings.**

**Aim 1 Results:** In the sample of 88 observations, elderspeak made up 28% of the speech by nursing staff to hospitalized patients with dementia. Discourse and paralinguistic each made up around 50% of elderspeak utterances. Minimizers and childish terms were the most commonly enacted elderspeak attributes.

**Aim 2 Results:** Forty-five of the 88 (49%) of the observations contained resistiveness to care by patients with dementia. Crying and turning away were the most frequent behaviors as measured by the Resistiveness to Care Scale. A mixed-effects model found that a 15% decrease in elderspeak leads to a 62% decrease in the odds of resistiveness to care ( $OR=.38$ ;  $CI=.21, .71$ ;  $p=.002$ ) when controlling for pain ( $OR=.37$ ;  $CI=.22, .63$ ;  $p<.001$ ), length of staff ( $OR=1.16$ ;  $CI=.94, 1.4$ ;  $p=.176$ ), and patient gender ( $OR=.04$ ;  $CI=.00, .42$ ;  $p=.008$ ).

#### **V. Recommendations.**

This study identified the harmful relationship between nurse enactment of elderspeak and resistiveness to care by patients with dementia in the hospital setting. Based on these findings, future research will adapt and test the evidence-based elderspeak reduction intervention (i.e., the CHAning Talk [CHAT] program) for nursing homes to the hospital setting.<sup>6</sup> This research also found that pain management of PLWD continues to be a pervasive issue in the hospital setting and strongly contributes to RTC.

#### **VI. Budget.**

<b>Direct costs</b>	<b>Amount used</b>
Transcription	\$75.81
Research assistant salaries (i.e., coding costs)	\$4924.19
<b>Total</b>	<b>\$5000.00</b>

#### **VII. Funding testimonial.**

The funding provided in this grant has made a substantial contribution to nursing science. This study provided the initial evidence that elderspeak in the hospital setting is pervasive and leads to harmful outcomes for patients with dementia. Twenty-eight percent of nurse communication to patients with dementia contains some form of elderspeak and that when

elderspeak is reduced by 15%, the odds resistiveness to care are reduced by 62%. Grant development is underway in order to combat this problem through adaptation and testing of an educational intervention on elderspeak reduction. This funding supported an early career scholar in achieving an independent program of research with the goal of improving the care of persons living with dementia through important and innovative research.

### VIII. **References.**

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