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Acute Care of the Elderly Column

Elizabeth Capezuti
PhD, RN, FAANSarah Hope Kagan
PhD, RN, FAANMary Beth Happ
PhD, RN, FAANLorraine C. Mion
PhD, RN, FAAN

Overcoming Speech and language disorders in acute and critical care: 40 years later



Mary Beth Happ, PhD, RN, FAAN, FGSA*, Jiwon Shin, PhD, RN, Judith A. Tate, PhD, RN

The Ohio State University College of Nursing Center for Healthy Aging, Self-Management and Complex Care

As our *Geriatric Nursing* anniversary year recognition continues, we are examining the topic of speech and language disorders in older adults during acute and critical illness and how attention to this topic has (or has not) changed in the past 40 years. In 1981, *Geriatric Nursing* published a classic, comprehensive overview of the assessment and treatment of speech and language disorders in older adults written by Barbara Dreher.¹ “Overcoming Speech and Language Disorders”¹ focused primarily on communication disorders resulting from stroke and laryngectomy. Several of the principles and interventions to improve communication presented in 1981 (e.g., modifying speaking and listening, maintaining quiet environment, and directions for the specific type of communication impairment) are still fundamental today in communication care for patients with stroke, and for a wide range of communication disabilities. Notably, the role of the speech language pathologist (SLP) in diagnosing and treating communication disorders was highlighted. Several communication tools such as communication boards with pictures, words, and letters and electronic voice synthesizers introduced in this article 40 years ago¹ are still used for non-vocal patients in the acute care setting. We now have more advanced communication tools and nurse-led research testing the usability and efficacy of several of these tools.²

Our understanding of the problems of communication disability, the conditions associated with impaired communication, and the health and safety risks of communication disability in the acute care of older adults increased tremendously over the past 40 years. Our view of communication disability expanded to include sensory impairments (i.e., poor vision or hearing) that affect receptive and expressive communication, limited English language proficiency, and

poor health literacy. Similarly, attention to conditions beyond stroke that are associated with impaired communication include a host of neurocognitive (dementia) and neuromuscular (Parkinson’s, amyotrophic lateral sclerosis) disorders as well as situational conditions in acute and chronic critical illness (mechanical ventilation) that prevent vocal communication.

Over the past 40 years, we witnessed advancements in hearing aid technology, and advocacy for hearing assessment and hearing aid access for older adults. However, less than 20–25% of persons who may benefit from hearing amplification devices or hearing aids own them, largely due to stigma, cost and access barriers.³ Hearing amplification and the availability of amplification technology for hospitalized older adults who are hard-of hearing is still widely variable in acute care hospitals despite Joint Commission standards mandating hospitals to accommodate communication disability.⁴ Experts recently called for increased attention to and enforcement of the Joint Commission standards specific to hearing amplification during acute care hospitalization.⁴

Missed communication and misinterpretation are recognized as patient safety issues for hospitalized adults as evidence shows that persons with communication disabilities have greater risk for preventable adverse events during hospitalization.⁵ The inability to access nurse call systems due to paralysis or weakness contributes to missed communication and is another form of communication impairment often experienced by hospitalized older adults, yet overlooked in care improvement initiatives. Zubow and Hurtig⁶ reported that 33% of conscious patients in intensive care units are unable to use the conventional nurse call systems to initiate communication of basic needs.

Our research and the work of colleagues in communication disorders science over the past four decades show that several common

*Corresponding author.

E-mail address: happ.3@osu.edu (M.B. Happ).

techniques that nurses rely on to communicate with nonvocal patients may contribute to *misinterpretation* of patient messages. For example, although many nurses rely on lip-reading to communicate with non-vocal patients, this technique requires formal training and is prone to misinterpretation.⁷ Nurses often assume that family members can interpret a patient's communication attempts during acute/critical illness, but family members report frustration and an inability to accurately interpret the patient's non-vocal messages.⁸ Communication impairment can affect symptom recognition by nurses and accurate pain assessment, in particular, can be problematic when patients have communication difficulty.^{9,10}

Multidisciplinary collaborations of communication disorders scientists, nurse researchers, and engineers led to improvements in low tech, augmentative and alternative communication (AAC) tools (e.g., simple and complex communication boards, non-English language translations), clinician training in basic communication skills and AAC techniques, and electronic communication devices and tablet applications,² including systems with nurse call features,¹¹ for use in medical settings. A hospital chaplain developed and tested a novel spiritual care picture communication board, to support chaplain communication with non-vocal patients, showing an association between chaplain-led picture-guided spiritual care and reductions in anxiety and stress during and after an ICU admission.¹² Many older adults prefer low tech AAC tools, but are still able and interested in using electronic tablet communication applications for medical encounters with appropriate demonstration and instruction.¹³ These studies and initiatives also highlight and extend the role of the speech language pathologist in providing instruction, consultation and support for complex communication needs of acute and critically ill older adults.^{14,15}

Unfortunately, although AAC tools and trainings directed at the communication needs of acute and critically ill adults improved over the past 40 years, dissemination, implementation and uptake are quite slow. Barriers to widespread availability and competence in the use of AAC tools and techniques in acute and critical care include competing priorities, lack of knowledge, perceived time commitment, and a general lack of programmatic ownership in many institutions for the provision of communication support. Our colleagues across the country continue to report a lack of training on how best to communicate with communication-impaired patients, unavailability of communication supplies at the bedside, and underutilization of inpatient SLP services for communication support consultations.

The coronavirus (COVID-19) pandemic, which disproportionately affects older adults in terms of severity and need for mechanical ventilation, sets an urgency to dissemination of communication materials and education and support for bedside providers.

Tragically, due to the isolation precautions necessary to prevent the spread of this devastating infection, family members are not able to attend at the bedside of patients with COVID-19. These critically ill patients and their family members are not able to benefit from patient-family centered communication interventions that could help them make sense of and process the critical illness event.¹⁶ ICU clinicians are required to fill the void. They need access to simple communication tools to quickly and reliably interpret COVID-19 patients' messages.

In addition to being unable to communicate their needs and questions without voice, these mechanically ventilated patients may also have difficulty understanding instructions and messages from care providers who are wearing protective masks. A national group of experts created a suite of free communication tools, non-English translations, and tips <https://www.patientprovidercommunication.org>.

The 'case example' tab provides exemplars of older adult patients with COVID19 to illustrate how speech language pathologists work with nurses to construct reliable methods to communicate with COVID-19 patients. They do this by observing from outside the isolation room, through iPad video connections, etc. The Ohio State University College of Nursing continuing education platform provides evidence-based communication training modules, brief demonstration videos, low-tech communication tools and a decision pathway for clinicians at <https://go.osu.edu/speacs>.

In summary, we know what to do and have some great tools and resources to provide comprehensive communication support to older adults with communication disability during acute and critical care hospitalization. However, these resources (e.g., hearing amplification, communication boards, writing tools, electronic devices, and SLP consultation) are not standardized or readily available in many acute care hospitals. Moreover, most interprofessional teams are not trained in communication assessment and the use of assistive tools and techniques tailored to an individual patient's abilities and preferences. We hope that, in response to the enormous influx of older patients who need assistive communication during this pandemic, nurses and other members of the interprofessional team will access the free tools and training. Please submit your acute-critical care communication stories at <https://www.facebook.com/groups/PatientProviderCommunication/> or email to Dr. Happ at happ.3@osu.edu.

References

- Dreher B. Overcoming speech and language disorders. *Geriatric Nurs.* 1981;2(5):345–349.
- Ten Hoorn S, Elbers PW, Girbes AR, Tuinman PR. Communicating with conscious and mechanically ventilated critically ill patients: a systematic review. *Critical Care.* 2016;20:333. <https://doi.org/10.1186/s13054-016-1483-2>.
- Wallhagen MI, Reed NS. Implications of hearing care policy for nurses. *J Geront Nurs.* 2018;44(9):9–14.
- Blustein J, Wallhagen MI, Weinstein BE, Chodosh J. It's time to take hearing seriously. *Joint Comm J Qual Patient Safety.* 2020;46:53–58.
- Bartlett G, Blais R, Tamblin R, Clermont R J, MacGibbon B. Impact of patient communication problems on the risk of preventable adverse events in acute care settings. *Canad Med Assoc J.* 2008;178(2):1555–1562.
- Zubow L, Hurtig R. A demographic study of AAC/AT needs in hospitalized patients. *SIG 12 Perspect Augment Alternat Commun.* 2013;22(2):79–90.
- Iezzoni LI, O'Day BL, Kileen M, Harker H. Communication about health care: Observations from persons who are deaf or hard of hearing. *Ann Intern Med.* 2004;140:356–362.
- Broyles LM, Tate JA, Happ MB. Use of augmentative and alternative communication by family members in the ICU. *Am J Critical Care.* 2012;21(2):e21–e32. [PMCID: PMC3607206].
- Tate JA, Seaman JB, Happ MB. Overcoming barriers to pain assessment: communicating pain information with intubated older adults. *Geriatric Nurs.* 2012;33(4):310–313.
- Happ MB, Sereika S, Garrett K, DiVirgilio-Thomas D, Tate JA, George E, Houze M, Radtke J. Nurse-patient communication interactions in the ICU. *Am J Crit Care.* 2011;20(2):e28–e40. [PMCID: PMC322584].
- Hurtig RR, Alper RM, Bryant KNT, Davidson KR, Bilskemper C. Improving patient safety and patient-provider communication. *SIG 12 Perspect Augment Alternat Commun.* 2019;4:1017–1027.
- Berning JN, Poor AD, Buckley SM, Patel KR, Lederer DJ, Goldstein NE, Brodie D, Baldwin MR. A novel picture guide to improve spiritual care and reduce anxiety in mechanically ventilated adults in the intensive care unit. *Annals Am Thoracic Soc.* 2016;13:1333–1342.
- Nilsen ML, Morrison A, Lingler J, Myers B, Johnson JT, Happ MB, Sereika S, Devito Dabbs A. Evaluating the usability and acceptability of communication tools with older adults. *J Geront Nurs.* 2018;44(9):30–39.
- Happ M, Baumann BM, Sawicki J, Tate JA, George EL, Barnato AE. SPEACS-2: intensive care unit "communication rounds" with speech language pathology. *Geriatr Nurs.* 2010;31(3):170–177.
- Altschuler T, Happ MB. Partnering with speech language pathologist to facilitate patient decision making during serious illness. *Geriatr Nurs.* 2019;40(3):333–335.
- Shin J, Tate JA, Happ MB. The Facilitated Sensemaking Model as a framework for family-patient communication during mechanical ventilation in the ICU. *Crit Care Nurs Clinics N Am.* In Press.