**Rationale**

- Hospitals are mandated to provide services that meet the unique communication needs of all patients, regardless of age or disability (The Joint Commission, 2010).
- Many young children with severe communication disabilities rely on alternative and augmentative communication (AAC) strategies to communicate with hospital staff.
- Unfortunately, these children are at increased risk for experiencing preventable adverse events (e.g., medication errors) and communication challenges with staff (Blackstone, Beukelman, & Yorkston, 2015) which can contribute to poor health outcomes.
- To design and implement effective services to support children with severe communication disabilities, hospitals must understand the complex contextual factors influencing hospital interactions.
- A paucity of evidence is available to describe the critical features of the inpatient communication experiences of children with severe communication disabilities, their families, and providers (Hemsley & Balandin, 2014).
- No direct observation techniques have been used to describe such interactions.

**Research Questions**

During day shift hours on an inpatient rehabilitation unit, (a) how many unique communication partners does a young child with a severe communication disability interact with during medical encounters? (b) what activities occur during medical encounters? (c) where do medical encounters occur? (d) what communication modes does the child use during these interactions?

**Methods**

- An observational study was conducted to describe the communication interactions among a young child with a severe communication disability, her parents, and medical personnel on an inpatient rehabilitation unit.

**Participants and Setting**

**Child Participant: Mae (pseudonym)**

- 28-month-old girl with a history of prematurity (born 28 weeks gestation), developmental delays, and diagnosis of failure to thrive
- Admitted to a rehabilitation hospital to participate in an intensive inpatient feeding program (daily speech therapy and occupational therapy sessions)
- Communicated primarily using manual signs, conventional gestures, speech approximations, graphic symbols, and challenging behaviors.

**Adult Participants: Mae’s adult communication partners**

- Mae’s mother and father
- 10 medical professionals: (a) 5 nurses, (b) 4 nursing assistants, and (c) 1 physician.
  - Mean age = 33.5 years (range = 23-54)

**Setting:**

- A 20-bed inpatient pediatric unit in the Northeast region of the United States

**Materials**

A handheld Sony Handycam® CX440 was used to record all medical encounters and to minimize researcher interference in the communication interactions.

**Procedures**

- Following informed consent, naturalistic video-recordings were collected during 10 days of a five-week period.
- Video-recordings occurred (a) between the hours of 7:00AM and 7:00PM, (b) during medical encounters (e.g., medication administration), and (c) involved a nurse, certified nursing assistant, and/or physician
- Recording started upon the medical provider’s entrance into the same room as the child participant and was discontinued if (a) an unconsented individual entered the shared space, (b) the provider exited the room, or (c) client privacy was required (e.g., a diaper change).

**Results**

27 video samples were collected (duration = 122.08 minutes)

**Communication Partners:** Parents were present for 100% of encounters (Mae’s mother = 71%, Mae’s father = 29%)

- 71% time spent with nurses, 14.5% with nursing assistants, 2.4% with physician, and 11.9% with multiple providers

**Activities:** administering medication (n = 12), completing rounding tasks (n = 6), taking vital signs (n = 5), measuring the child’s weight (n = 3), and inserting a nasogastric tube (n = 1).

**Locations (whole or part):** Mae’s room (n = 1), dining room (n = 3), hallway (n = 1), and procedure room (n = 11)

**Communication Modes:** Mae used multimodal communication in all sessions

- Significant variability in the providers’ interpretations of Mae’s use of non-symbolic and unaided AAC methods
- No attempts were made by an adult partner to use low- or high-tech AAC strategies.

**Discussion & Implications**

- Mae encountered a myriad of medical staff when hospitalized. Although interactions lasted only a few minutes, Mae used multimodal communication during each interaction. To effectively interact during medical encounters with Mae, hospital staff were required to use AAC strategies to support communication.
- Future research should consider the substantial number of communication partners, limited time, and the unique settings and activities within the hospital when designing AAC tools and trainings.
- A detailed analysis of the sequence and content of child-parent-provider interactions is warranted to better understand and support communicative effectiveness in the hospital.

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