Researchers find new way to assess communication of people with severe disabilities

March 28 2012

(Medical Xpress) -- A team of researchers led by University of Kansas scientist Nancy Brady has developed a new way to assess the communication capability of individuals with severe intellectual and developmental disabilities who often communicate with gestures, body movements and vocalizations instead of spoken words. The study was published in the February 2012 *American Journal of Speech Language Pathology*.

The Communications Complexity Scale (CCS) is a tool for researchers and clinicians to measure the communication development of both children and adults with disabilities as diverse as autism spectrum disorders, deaf-blindness and cerebral palsy for the purposes of assessment and intervention.

“Understanding the communication status of individuals with severe intellectual and developmental disabilities is difficult because they often communicate in ways that may not be readily recognized, even by clinicians,” said Brady, who pioneered a communication assessment and intervention for children with deaf-blindness.

The CCS is based on the well-established continuum of “presymbolic” stages of communication development in typically developing children from birth, beginning with an infant crying or smiling, followed by eye gaze, gesturing and vocalizing directed at another person, to using

"symbolic" communication, typically, spoken words.

These developmental changes have been studied and documented for individuals with different types of disabilities, according to Brady, and were incorporated into the CCS.

Children with ASD infrequently use gestures, for example, while those with Down syndrome often gesture to communicate. Individuals with deaf-blindness may show interest in objects but have difficulty showing shared interest with another person, a milestone in communication development, through eye gaze or gesturing.

A major goal of the CCS was a measure that would provide a summary score that would reflect an individual's current status on the communications continuum, rather than a particular chronological age or other comparison group, a drawback of many existing measures.

Additionally, the measure was designed to be more sensitive to change over time as well as to an individual's response to behavioral and medication interventions.

The CCS has 11 levels of behaviors associated with the stages of communication development. It was developed, tested and refined by two teams of researchers at the University of Kansas and a third at the University of Washington. The study focused on three groups of 178 participants who represented a variety of ages, diagnoses, exposure to languages (other than English), motor and sensory abilities, including ASD, Down syndrome and motor impairments. None could express more than 20 words of speech, signs or symbols.

The CCS scores were compared to those of standardized tests of language and were highly correlated. They were also compared to reports from family members and other caregivers. Scores from informant

reports tended to place children at higher levels of communication than did the CCS scores.

The research was supported by grants from the Eunice Kennedy Shriver National Institute of Child Health & Human Development and the National Institute on Deafness and Other Communication Disorders.

Provided by University of Kansas