



ELSEVIER

Contents lists available at ScienceDirect

## Research in Developmental Disabilities



# Children with cerebral palsy, spina bifida and pragmatic language impairment: Differences and similarities in pragmatic ability

Pernille Holck<sup>a,\*</sup>, Ulrika Nettelbladt<sup>a</sup>, Annika Dahlgren Sandberg<sup>b</sup>

<sup>a</sup> Department of Logopedics, Phoniatrics and Audiology, Clinical Sciences, Lund University, Sweden

<sup>b</sup> Department of Psychology, Gothenburg University, Sweden

### ARTICLE INFO

#### Article history:

Received 20 January 2009

Accepted 21 January 2009

#### Keywords:

Pragmatic abilities

Linguistic abilities

Cognitive abilities

Underlying skills

Social versus linguistic assessment

### ABSTRACT

Pragmatically related abilities were studied in three clinical groups of children from 5 to 11 years of age; children with cerebral palsy (CP;  $n = 10$ ), children with spina bifida and hydrocephalus (SBH;  $n = 10$ ) and children with pragmatic language impairment (PLI;  $n = 10$ ), in order to explore pragmatic abilities within each group. A range of pragmatic, linguistic and cognitive assessments were performed, and comparisons between the groups were made. In addition, connections between variables were studied. The most salient result was the many similarities and the lack of clear boundaries between the groups. The only significant differences found concerned short-term memory and inference ability, where all three groups experienced problems but to varying extent. Different patterns of variance were found in the groups, indicating that different underlying abilities such as reception of grammar, inferential comprehension and lexical comprehension seem to affect pragmatic ability in somewhat different ways. The results suggest that the children with CP and SBH in this study shared a number of pragmatically related traits, being more similar than would be expected according to earlier research. Finally, it is suggested that pragmatic assessment is further subdivided into a socially versus a linguistically related assessment.

© 2009 Elsevier Ltd. All rights reserved.

\* Corresponding author. Tel.: +46 46 177833; fax: +46 46 171732.

E-mail address: [pernille.holck@med.lu.se](mailto:pernille.holck@med.lu.se) (P. Holck).

## 1. Introduction

Pragmatic impairment is a complex and elusive concept that encompasses several scientific areas. It is a concept hard to pin down, without clear defining features and sufficiently constrained inclusion criteria (Leinonen, Letts, & Smith, 2000). Although the existence of instruments as, e.g. The Children's Communication Checklist (CCC; Bishop, 1998) could be helpful, according to Letts and Leinonen (2001) clear criteria for diagnosing pragmatic impairment are not available. The process still involves a heavy dependence on clinical judgement and good knowledge of the specific child (Conti-Ramsden, Crutchley, & Botting, 1997). The assessment of pragmatic ability is further complicated by the variability in performance of children with pragmatic problems, due to context dependency. Children with pragmatic impairment normally find it easier to perform in a structured situation guided by an adult, e.g. a formal assessment situation, than in an unstructured situation such as a spontaneous conversation (Bishop, 1998). In addition, there is a general lack of norms in different subskills (Adams & Lloyd, 2005; Letts & Leinonen, 2001), making pragmatic impairment difficult to establish unambiguously. One contributing factor to the lack of norms is the context dependency and the fact that pragmatic ability changes over time.

Two of the most common early-onset physical impairments in children are cerebral palsy (CP) and spina bifida (SB). Both conditions are reported to be associated with problems related to communication, however with different manifestations. Although there is an extensive body of research on issues related to speech and language in both conditions, descriptions of pragmatic ability are more scarce (Bara, Bosco, & Bucciarelli, 1999), especially when it comes to cerebral palsy. In this condition, the communication problems often occur as motor speech and interactional problems, whereas in the case of spina bifida (in this study spina bifida with hydrocephalus) speech and language often appear to be well functioning on the surface.

Although language related abilities often have been considered to be a strength in children with SB and hydrocephalus (SBH), SBH was one of the first conditions associated with pragmatic problems, at the time labelled as "cocktail party syndrome" (Hadenius, Hagberg, Hyttnes-Bensch, & Sjögren, 1962; Rapin & Allen, 1983; Tew, 1979). More recently, e.g. Fletcher, Barnes, and Dennis (2002) stated that most children with SBH experience difficulties in the construction of meaning and pragmatic comprehension. SBH leads to a range of cognitive and motor difficulties, including language. Examples of such problems in the SB-group are learning difficulties, deficits in memory, comprehension of ongoing discourse and content-impoverished language (Dennis & Barnes, 1993; Fletcher et al., 2002); dysfluency (Huber-Okraïnec, Dennis, Brettschneider, & Spiegler, 2002); difficulties in making inferences as well as retrieving literal information from a text and problems with reading comprehension (Barnes & Dennis, 1998; Dennis & Barnes, 1993). Phonological and grammatical language abilities as well as lexicon are considered to be largely unaffected (Fletcher et al., 2002). Barnes and Dennis (1998) suggest that difficulty in using context to understand meaning underlie many of the discourse deficits associated with SBH.

Problems in relation to communication in children with CP are in some respects different from those of children with SBH. The CP-group is very heterogeneous, and comprises a wide range of communication disorders such as anarthria/dysarthria, apraxia/dyspraxia and language impairment. Contrary to children with SBH, pragmatic problems are not frequently reported among children with CP, with some exceptions (Dallas, Stevenson, & McGurk, 1993; Pennington, 1999; Pennington, Goldbart, & Marshall, 2004; Pennington & McConachie, 2001). However, in clinical practise it has been observed that in the CP-group, children who are able to speak as well as children using alternative and augmentative communication (AAC) relatively frequently have pragmatically related problems. The problems are often referred to as problems in conversation, and have not been as extensively explored as in the group of SBH. Possible pragmatic problems in children with CP may to some extent be masked by their conversational passivity, as these children often are described as taciturn, primarily taking a passive and respondent role in conversation (Dahlgren Sandberg & Liliedahl, 2008; Dallas et al., 1993; Hjelmquist & Dahlgren Sandberg, 1996; Pennington & McConachie, 1999), producing many yes/no answers and seldom asking questions (Pennington, 1999; Pennington & McConachie, 1999). This may result in problems with developing functional communication and narrative ability (Pennington, 1999; Pennington et al., 2004; Pennington & McConachie, 2001). Moreover, children with CP often experience

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات