Relations of Emotional Reactivity and Regulation to Attitudes About Talking in Preschool Children Who Stutter

HAYLEY S. ARNOLD, PURDUE UNIVERSITY ■ KATERINA NTOUROU, AND EDWARD G. CONTURE, VANDERBILT UNIVERSITY

ABSTRACT

This study examined relations between the emotional reactivity and regulation of young children who stutter (CWS) and their attitudes about talking. Participants were 48 3- to 6- year old CWS who completed a self-report measure of communication attitudes, the Kiddy-CAT (Vanryckeghem & Brutten, 2006) and whose parents completed a measure of emotional reactivity and regulation, the Children's Behavior Questionnaire (Rothbart, Ahadi, Hershey, & Fisher, 2001). Results indicate that attitudes toward talking were unrelated to emotional reactivity and regulation (ERR) in preschool CWS suggesting that these attitudes may involve more *conscious*, *cognitive* recollections of the child's personal experiences while ERR may involve the child's more *unconscious*, *emotional* responses to his or her external and internal environment.

BACKGROUND

- Negative speech-associated attitudes have been found to be higher in preschool CWS compared to preschool CWNS (children who do not stutter; Vanryckeghem, Brutten, & Hernandez, 2005), suggesting that awareness and concern about stuttering for preschool CWS may emerge closer to stuttering onset than previously thought.

- Given preliminary evidence that preschool CWS may be more emotionally reactive and less able to regulate their reactions than their normally fluent peers (Karrass et al., 2006; Karrass et al., 2007), it may be that emotional reactivity and regulation influence the degree to which preschool CWS attend to, react to, and cope with early difficulties communicating.

- Thus, the purpose of the present study was to explore the relations of self-reported attitudes toward talking with emotional reactivity and regulation in preschool CWS.

METHOD

Participants

- 48 CWS (3;0 to 5;11 years;months) pre-school age children.
- Participants had no history of speech/language disorders other than stuttering and scored at or above the 16th percentile on a series of norm-referenced speech-language tests [e.g., Peabody Picture Vocabulary Test – III (Dunn & Dunn, 1997)].
- A conversational sample was used to analyze speech disfluencies; criteria for talker-group classification (i.e., CWS vs. CWNS) have been reported elsewhere (Logan & Conture, 1997).

Measures

- Children's Behavior Questionnaire (CBQ; Rothbart, Ahadi, Hershey, & Fisher, 2001)
  - A norm-based parent-report measure of temperament, including the following subscales: negative affect, falling reactivity, attention shifting, inhibitory control, attention focusing, and motor activity.
- Communication Attitude Test for Preschool and Kindergarten Children who Stutter (Kiddy-CAT, Vanryckeghem & Brutten, 2006)
  - A self-report measure of speech-associated attitude in children under the age of six.

RESULTS

- Bivariate Spearman correlations were conducted between each child's Kiddy-CAT score and each of the following CBQ subscales: negative affect, falling reactivity, attention shifting, and attention focusing.

- Although preliminary results ($N = 21$) indicated a significant moderate correlation between the Kiddy-CAT score and the attention shifting score ($r = .462$, $p < .05$), there were no significant correlations with the larger sample ($N = 48$, $ps > .05$).

- To test whether the correlations were obscured by age differences within the sample, Spearman correlations were rerun with the CWS divided into two groups consisting of 26 children from 3;0 to 3;11 and 22 children from 4;0 to 5;11.

- None of these correlations were statistically significant ($ps > .05$), although attention shifting was moderately correlated with the Kiddy-CAT score for the older CWS with marginal significance ($r = .379$, $p = .082$).

- To test whether results were influenced by variations of time since onset of stuttering (TSO) in the sample, a Spearman correlation was run between TSO and Kiddy-CAT score.

- No correlation was found between the Kiddy-CAT and TSO ($p > .05$), suggesting that, at least for preschool CWS, awareness and concern of stuttering may not be related to the length of time they've exhibited the disorder. Thus, it was deemed unlikely that variations in TSO influenced the relations tested in this study.

DISCUSSION

- Contrary to preliminary findings, analyses with a larger sample of preschool CWS indicated no relation between CWS's speech-associated attitudes and selected components of parental reports of emotional reactivity and regulation (ERR), including the following CBQ subscales: negative affect (e.g., "When angry about something, s/he tends to stay upset for ten minutes or longer."), falling reactivity (e.g., "Calms down quickly following an exciting event."), attention focusing (e.g., "When drawing or coloring in a book, shows strong concentration.") and attention shifting (e.g., "Sometimes doesn't hear me when I talk to her/him [reverse scored].")

- Further testing indicated that time since onset (TSO) of stuttering, at least during the preschool years, does not appear to influence the nature in which CWS perceive their own speaking ability. Accordingly, variations in TSO within the sample appear unlikely to influence the lack of relation between speech-associated attitudes and emotional reactivity and regulation. Likewise, chronological age variation in the sample had minimal influence on present findings.

- The lack of correlations found in this study may relate to the possibility that speech-associated attitudes involve *conscious*, *cognitive* recollections by the child's personal experiences, whereas emotional reactivity and regulation involve more *unconscious*, *emotional* responses of the child's external and internal environment.

- An alternative explanation for this study's findings could be that the method of parent report used may not assess those components of emotional reactivity and regulation most likely to account for variation in speech-associated attitudes in preschool CWS. For example, it may be that direct laboratory observation measures of children's emotional reactivity and regulation, such as the Laboratory Temperament Assessment Battery (Lab-TAB, Goldsmith & Rothbart, 1991), would be more likely to account for differences in speech-associated attitudes.

CONCLUSIONS

- Data from self- and parent-report measures suggest that child-report-based speech-associated attitudes in preschool CWS are unrelated to parent-report-based indicators of their emotional reactivity and regulation. Although these findings suggest that factors other than emotional reactivity and regulation may impact attitudes toward talking, it may be that the particular parent-report measure used does not adequately assess the emotional factors related to or affecting these attitudes.

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References available upon request.
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