



Communication Attitude of Preschool and School-age Greek-speaking Children who Stutter

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Abstract

This study provided normative data for the Greek translation/adaptation of the *Communication Attitude Test for Preschool and Kindergarten Children Who Stutter* (KiddyCAT; Vanryckeghem & Brutten, 2007) and the *Communication Attitude Test* (CAT; Brutten & Vanryckeghem, 2007).

Greek-speaking preschool ($N = 71$) and school-age ($N = 67$) children who stutter present with more negative speech-associated attitudes than their fluent peers, evidenced by significantly higher KiddyCAT and CAT scores respectively.

Background

Studies in different cultures/languages (Gačnik & Vanryckeghem, 2014; Węsierska & Vanryckeghem, 2015) and a recent meta-analysis (Guttormsen, Kefalianos, & Næss, 2015) indicate that children who stutter (CWS) exhibit more negative communication attitudes than their fluent peers. Thus, it is imperative for clinicians to assess the speech-associated attitudinal and emotional facets of stuttering and if/when needed to address them in therapy. Unfortunately, there is an absence of diagnostic tools to evaluate the affective aspect of stuttering in the Greek language and this study was designed to address this gap.

Measures

- The *Communication Attitude Test for Preschool and Kindergarten Children Who Stutter* (**KiddyCAT**; Vanryckeghem & Brutten, 2007) is a 12-item, binary (yes/no) questionnaire designed to assess communication attitudes, specifically perception/attitudes towards speech difficulty, in 3- to 6- year old CWS (Clark, Conture, Frankel, & Walden, 2012).
- The *Communication Attitude Test* (**CAT**) is part of the *Behavior Assessment Battery* (BAB; Brutten & Vanryckeghem, 2007), which examines school-age CWS' attitude towards their speech. The CAT assesses children's attitude towards their speech and is composed of 33 "True/False" questions.
- The Greek versions of KiddyCAT and CAT were developed following the recommended practice of forward- and back-translation (Sousa & Rojjanasrirat, 2010).

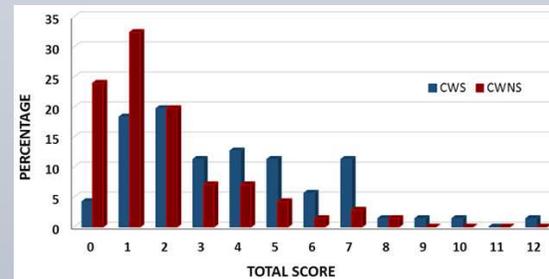
KiddyCAT Participants

- 71 CWS (52 male, 19 female) and 71 CWNS between 3;0 and 6;5 years of age (in months: $M = 57.84$, $SD = 10.21$) matched for age (+/- 4 months) and gender. Mean TSO (time since stuttering onset) was 19.32 months ($SD = 10.16$).
- None of the CWNS participants had suspected/diagnosed speech-language problems and other diagnoses.
- In the CWS group, 2 participants were diagnosed with ADD/ADHD, and 34 with phonological and/or language problems. 57% had never received services for stuttering and 43% were enrolled in speech-language therapy.

KiddyCAT Results

- CWS exhibited significantly **higher** KiddyCAT scores than CWNS, $F(1, 127.92) = 24.15$, $p < .001$
- There was **no** statistically significant difference in KiddyCAT scores between CWS who were enrolled in therapy and CWS who had never received services, $F(1, 68) = 1.41$, $p = .24$
- There was **no** statistically significant difference in KiddyCAT scores between CWS with and without concomitant language and phonological disorders, $F(1, 69) = 0.48$, $p = .49$

	Mean	SD	Median	Mode	Min	Max
CWS	3.66	1.82	3	2	0	12
CWNS	2.56	1.86	1	1	0	8



Study	Cohen's d	CWS	CWNS	Language
Novšak Brce, Vanryckeghem, & Jerman (2015)	1.92	49	75	Slovenian
Węsierska & Vanryckeghem (2014)	1.71	58	70	Polish
Vanryckeghem & Brutten (2007)	1.14	45	63	English
Vanryckeghem & Brutten (2015)	1.09	249	264	Dutch
Present Study	0.83	71	71	Greek
Clark, Conture, Frankel, & Walden (2012)	0.77	52	62	English

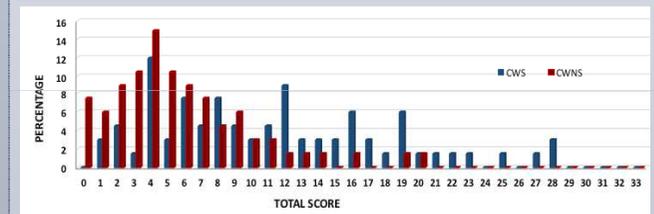
CAT Participants

- 67 CWS (55 male, 12 female) and 67 CWNS between 6;0 and 15;10 years of age (in months: $M = 111.11$, $SD = 27.49$) matched for age (+/- 6 months) and gender.
- None of the CWNS participants had suspected/diagnosed speech-language problems and other diagnoses such as autism and ADD/ADHD.
- In the CWS group, 4 participants were diagnosed with ADD/ADHD, 1 with autism, and 15 with phonological and/or language problems. 29% had never received services for stuttering and 71% were enrolled in speech-language therapy (now or in the past).

CAT Results

- CWS exhibited significantly **higher** CAT scores than CWNS, $F(1, 112.79) = 42.98$, $p < .001$.
- There was **no** statistically significant difference in CAT scores between CWS who were/had been enrolled in therapy and CWS who were/had not, $F(1, 65) = 0.88$, $p = .35$

	Mean	SD	Median	Mode	Min	Max
CWS	12.03	6.69	11	5	2	28
CWNS	5.66	4.31	5	4	0	20



Study	Cohen's d	CWS	CWNS	Language
Bernardini, Vanryckeghem, Brutten, Cocco, & Zmarich (2009)	2.66	149	148	Italian
Jelič Jakić (2012)	2.54	118	392	Croatian
Gačnik & Vanryckeghem (2014)	2.50	58	138	Slovenian
Brutten & Vanryckeghem (2007)	1.83	139	578	English
Vanryckeghem & Brutten (1996)	1.77	55	55	Dutch
Kawai, Healey, Nagasawa, & Vanryckeghem (2012)	1.15	80	80	Japanese
Present Study	1.13	67	67	Greek

Conclusion

Similar to other cultures/languages, Greek-speaking preschool-age and school-age CWS exhibit statistically significantly more negative communication attitudes than CWNS.