

Poster presentation

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Exploring the ceiling effect of the revised Childhood Health Assessment Questionnaire in a European patient sample

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Background

The original version of the Childhood Health Assessment Questionnaire (CHAQ30orig) suffers from a ceiling effect and hence has reduced clinical validity [1]. The effect of adding eight more demanding items and a new continuous response option (CATII) was tested.

Methods

Twenty-four children with JIA [2] were recruited from eight centres across Europe. Demographic, clinical, and CHAQ data were obtained. Five different score calculations were applied: the original method (CHAQ30orig), and the mean item scores for the 30 and 38-question versions with two categorical response options (ChaQ30item CAT I and II and ChaQ38item CAT I and II).

Descriptive statistics were calculated and CHAQ-data were tested for normality. A ceiling effect was defined by 15% or more patients scoring the best possible score.

Results

(preliminary, based on 30% of total data).

A ceiling effect was observed in CHAQ30orig and CHAQ30item (20.8% for both). The median scores, KS-statistics, p-values, and interquartile range (IQR) are presented in table 1.

Discussion

The CHAQ38 with CATII scoring showed best overall distribution characteristics: no ceiling effect, more normally distribution, and the second largest IQR. (In September 2008 final results are presented).

References

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Table 1: Median, ceiling effect, KS results, and interquartile range of five CHAQ scoring methods.

	Scoring method	Median (range)	Ceiling effect (%)	KS-statistic	P-value	IQR
Cat I	ChaQ30orig	0.81 (0–2.13)	20.8*	0.87	0.43	1.38
	ChaQ30item	0.36 (0–1.04)	20.8*	0.87	0.50	0.43
	ChaQ38item	0.38 (0–1.26)	8.3	0.86	0.45	0.54
Cat II	ChaQ30item	-0.24 (-1.26–0.40)	0	0.84	0.49	0.48
	ChaQ38item	-0.34 (-1.26–0.42)	0	0.69	0.73	0.64

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