Impact of Interview Mode on Accuracy of Child and Parent Report of Adherence With Asthma Controller Medication

Bender BG, Bartlett SJ, Rand CS, Turner C, Wamboldt FS, Zhang L. Pediatrics. 2007;120(3). Available at: www.pediatrics.org/cgi/content/full/120/3/e471

PURPOSE OF THE STUDY. To examine the effect of different modes of reporting adherence on the accuracy of self-administration of inhaled corticosteroids in asthmatic children under conditions mimicking a clinical trial.

STUDY POPULATION. A total of 104 asthmatic children, 8 to 18 years old, who were being treated for asthma with regular use of inhaled corticosteroids were studied. One parent was required to participate with each child.

METHODS. Each parent/child pair was assigned to 1 of 3 self-reporting modes: audio computer-assisted self-interview (ACASI), face-to-face interview with a member of the study staff, or self-administered paper-and-pencil questionnaire. The same mode was administered at each study visit for any given parent/child pair: baseline and at 1, 2, 3, and 4 months. Corticosteroid metered-dose inhalers were fitted with an electronic chronometer that captured the time and date of metered-dose inhaler dispensing, freshly initialized at baseline and at each study visit. Adherence was determined by dividing the number of puffs recorded by the number of puffs prescribed. Self-assessment of adherence was determined similarly for the 3 modes. The recall time frames were 1 week and 1 day. The primary outcome was self-reporting discrepancy (percent adherence recorded minus percent self-adherence self-reported). A positive discrepancy score represented underreporting, a negative score represented overreporting, and zero represented exact reporting. Adequate accuracy was considered when the discrepancy score was ±25%.

RESULTS. Children and parents overrepresented adherence for both the 1-week and 1-day monitoring periods. Adherence discrepancy was the greatest in the ACASI mode (adequate accuracy for children and parents, respectively, was 32% and 27% for 1-day recall and 47% and 38% for 1-week recall). The best accuracy was for the 1-day recall in children interviewed face-to-face (50% adequate). Larger discrepancies were observed in both children and parent with the other modes.

CONCLUSIONS. Self-reporting of adherence was insufficient even under the best of circumstances regardless of the mode of self-reporting used in this study.

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Early Rattles, Purrs and Whistles as Predictors of Later Wheeze


PURPOSE OF THE STUDY. To determine how different respiratory sounds in 2-year-olds (whistles, purrs, and rattles) characterized as wheeze by parents predicted wheeze and asthma diagnosis at 5 years of age. A better understanding of parental descriptions of respiratory symptoms may lead to a more accurate diagnosis of asthma.

STUDY POPULATION. The study subjects were children followed at 2 time points: at ages 2 and 5 years. They were recruited randomly before birth irrespective of history of parental asthma and allergy.

METHODS. Two thousand pregnant women were recruited randomly at 12 weeks’ gestation, initially as part of a longitudinal birth cohort designed to relate dietary exposure in early life to asthma outcomes in childhood. Parents filled out questionnaires by mail regarding respiratory symptoms when their children were aged 2 and 5 years. Questions included, “Has your child ever suffered from asthma?” and “Has this been diagnosed by a doctor?” Current wheeze was defined as wheezing that has occurred over the last 12 months. If present, parents were asked to categorize the wheeze by sound, describing it as a whistle, rattle, purr, or other sound. If “other sound” was designated, the subjects were excluded from the analysis.

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