

Autism Spectrum Disorders Screening and Diagnostic Practices: A Survey of Physicians

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Abstract.In 2007, AAP issued a policy statement recommending physicians screen all children for autism spectrum disorders (ASD) two times prior to child's second birthday. It has been documented, however, that children are not being diagnosed with ASD until they are six years of age. In this study, physicians from Kansas ($n = 69$, 15.33% response rate) responded to a survey regarding screening practices for children with ASD. Of the respondents, 56 Pediatricians and Primary Care Physicians were included in the analysis. Only 21 (39%) of the respondents indicated that they routinely screened for ASD. Physicians who reportedly screen routinely were more likely to be pediatricians, female, and younger in age. They also felt confident about screening and diagnosing for ASD.

Introduction

Autism spectrum disorders (ASD) are pervasive developmental disorders affecting as many as 1 in 170 births [1]. A national survey of parents in 2007 indicated the prevalence of parent-reported diagnosis of ASD was approximately 1 in 91 U.S. children [2]. Though there is widespread increase in the awareness of ASD, most children with ASD are not identified clinically at a very early age [3]. A 2004 survey of pediatricians showed that only 8% of them routinely screened for ASD [4]. Early identification of ASD is essential as it allows for early intervention specifically designed for their unique learning needs. Studies show that children who receive intervention by age 3 years show significant developmental gains and significantly reduced associated deficits like impaired communication and social skills [3]. In 2006, the American Academy of Pediatrics (AAP) issued a policy statement and a follow-up clinical report in 2007 recommending physicians screen all children for developmental disorders during regular doctor visits at age 9, 18 and 24 months, respectively and at any other time when parents raise a concern about a possible ASD [5]. Based on the AAP's recommendation, this study was initiated to conduct a state-wide survey of physicians in the state of Kansas who regularly care for young children to identify their current screening and diagnostics practices for ASD.

Method

Participants

The study participants included a random sample of 450 physicians (family practice physicians, internal medicine physicians, pediatricians, and psychiatrists) in Kansas, randomly selected from a public mailing list of 1352 physicians acquired from Kansas Medical Society.

Procedure

The study instrument was a survey questionnaire consisting of 16 items regarding demographics, training and practice information specifically related to screening, diagnosis, and treatment of ASD. The survey was mailed to physicians and all surveys were coded to maintain individual anonymity and to monitor the return rates. Demographic variables were compared for physicians who screened routinely and those who did not using chi-square statistics. Frequencies of screening tools used were calculated. Spearman's correlation was used to identify the relationship between these physicians screening practices and their confidence and training related to ASD.

Preliminary Results

Of the 450 surveys mailed, we received 69 responses, a response rate of 15.33%. Based on responses, only Pediatricians and Primary Care Physicians (response rate of 18.6%), regularly cared for young children. Therefore, only those two groups were included in the analysis. The results indicated that Pediatricians were more likely to screen and Primary Care Physicians were more likely not to screen $\chi^2(1, n=54) = 10.42, p = .001$. Of the 21 physicians who screened routinely irrespective of the specialty, only four (19%) routinely screened at 9, 18 and 24 months in accordance with the AAP recommendations but 17 (81%) physicians screened before 2 years of age. Of the physicians who screened routinely, 52.4% used the Modified Checklist for Autism in Toddlers (M-CHAT) as the screening tool for ASD. There was a significant relationship between gender and routine screening practices $\chi^2(1, n=54) = 5.61, p < .05$ revealing that female physicians were more likely to screen routinely and male physicians were more likely not to screen routinely. Though the influence of age of these physicians on their screening practices did not reach statistical significance, it was interesting to note that physicians who were aged 55 and older did not screen routinely compared to physicians who were younger. Spearman’s correlational analysis between confidence of these physicians and training with their screening practices showed a significant positive relationship. According to the responses, the most commonly recognized barriers to routine screening were time limitations, not having enough training and not being familiar with the screening tools.

Table: 1
Screening practices for ASD by professional role and gender

Professional Role	Gender	Routine Screening for ASD/PDD	
		Yes	No
Pediatricians	Female	6 (60%)	0 (0%)
	Male	4 (40%)	3 (100%)
	Total	10 (47.6%)	3 (9.1%)
Primary Care Physicians	Female	5 (45.5%)	7 (23.3%)
	Male	6 (54.5%)	23 (76.7%)
	Total	11 (52.4%)	30 (90.9%)
Total		21 (38.9%)	33 (61.1%)

Discussion

Though there was significant influence of professional role and gender on the screening practices, the study is limited by low response rate. A follow-up survey has been mailed to the non responders in an effort to increase the response rate which is important to make meaningful interpretations.

Conclusions

Based on the preliminary results it is evident that Primary Care Physicians and Pediatricians who are often the first point of contact for parents are not confident about recognizing the signs and symptoms of ASD. It is important to organize workshops both onsite and offsite to help them be better prepared to screen, diagnose and treat children with ASD and also strengthen the medical school and residency training in the area of ASD for future physicians.

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