

Parental Surveys Boost Diagnosis Abilities of Doctors



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A simple questionnaire developed at the University of Oregon and requiring no more than 15 minutes of a parent's time before or after a doctor's appointment is credited with a 224-percent increase in referrals of year-old and 2-year-old children with mild developmental delays in a yearlong study.

Researchers found that on doctors' observations alone 53 of 78 referrals for special services or additional monitoring would not have been made without the Ages & Stages Questionnaires (ASQ) filled out by parents at home or in the office. Thirty-eight children underwent further evaluation and qualified for federally funded early intervention services, and 44 others became eligible for additional monitoring.

The study appeared in the August issue of the journal *Pediatrics*.

"Seeing the results as a percentage was pretty shocking," said lead author Hollie Hix-Small, who this year earned a doctorate from the Early Intervention Program in the UO College of Education. She now is a UO research associate and an independent early childhood consultant.

The 224-percent jump in referrals occurred despite just a 54 percent return rate of the survey, which was given to 1,428 parents or caregivers, and a 15 percent decrease in patient volume in the newborn to 2-year-old range compared to the control (no ASQ screening) year. Almost certainly, the referral rate would have been higher had more forms been completed, said co-author Dr. Kevin Marks, a pediatrician at the PeaceHealth Medical Group in Eugene.

"The study was about making quality improvements in health-care delivery," Marks said. "We had intuitions that physicians had difficulty identifying children with mild developmental delays, especially in the fine motor, problem-solving and personal-social domains. Physicians focus mostly on milestones involving communication and gross motor skills. The data shows that when physicians suspect a delay, those children are almost always eligible for early intervention services, but, at the same time, we have our limited powers of observation."

Those limits, he added, often result from busy offices, including tight scheduling and heavy patient loads.

The study also indicated that physicians had a greater difficulty identifying delays at 12 months compared to 24 months. “I intuitively thought that physicians took a wait-and-see approach with younger patients with likely delays, but the data suggest that they more often just miss those likely delayed children at the 12-month well-child visit,” Marks said. “This finding was noteworthy and needs to be shared with other pediatricians.”

The authors noted that an estimated 12 percent to 16 percent of U.S. children have developmental delays or behavioral problems, according to four studies they cited. Research also has shown that early intervention improves a child's long-term academic and behavioral outcomes.

“Many communities are struggling with getting their identification rates up,” Hix-Small said. “We think that detection rates by physicians can go up when parents use some kind of a standardized parent-completed tool.”

The ASQ -- already recommended by the American Academy of Pediatrics for other targeted age groups -- was developed about 20 years ago by a team that included this study's other two co-authors, Jane Squires, director of the UO Early Intervention Program and professor in the department of special education, and Dr. Robert Nickel, professor of pediatrics at the Oregon Health & Science University in Portland. The ASQ covers different age intervals, from four months to five years. It includes 30 items and five questions on different areas of development.

In this study, 18 pediatricians and two nurse practitioners participated.

“We found that many doctors were simply missing many kids and not because they were taking a ‘wait-and-see’ approach on possible delays,” Marks said. “We, as doctors, are under identifying the number of children who can benefit from intervention. The paradox is that the children with mild delays are the same ones who oftentimes respond well to early intervention. I like to say that the brain is like a piece of hot plastic. You have to work with it and mold it before it solidifies.”

Those most likely to benefit from early intervention, he added, are children with mild delays, children from low socioeconomic backgrounds and younger children with early signs of autism.

The UO's Early Intervention Program now is experimenting with a Web-based version of the ASQ to streamline the process so that more parents and/or caregivers will use the form to assist their children's pediatricians, Hix-Small said. On the Web site (<http://asq.uoregon.edu/>), parents and caregivers can complete the ASQ. Participation is free and confidential.

Links: UO Early Intervention Program (EIP): <http://eip.uoregon.edu/index.html>; EIP testing site of ASQ for 12-month to 24-month old children: <http://asq.uoregon.edu>